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AUGUST 1953

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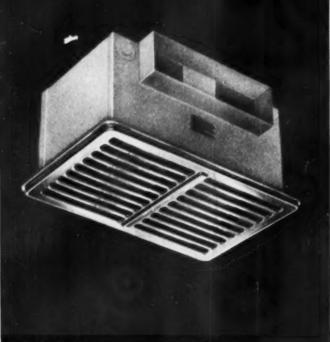
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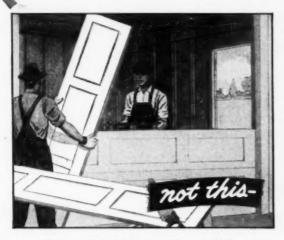
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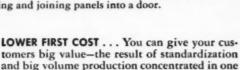
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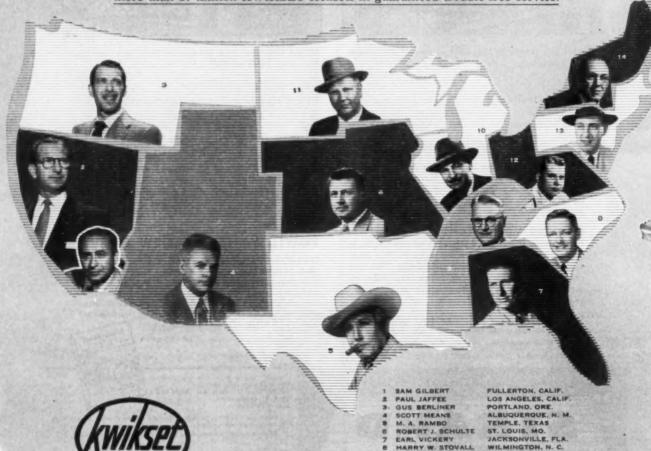
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ON THE COVER-Do you know the facts of life about a king post roof truss, the 11/2-story truss, the "W" truss? It's important to know because wood roof truss construction leads to important savings in construction costs. This month's feature on roof trusses. p. 42, analyzes the whole picture for you.

The Blueprint House this time (p. 34) is a \$26,000 ranch type adapted to a Chicago setting. It's one of three semi-custom models offered by Robert Bartlett in a tract in suburban Deerfield. This is a house for project builders who want to give their houses some of the individuality of custom design.

A project builder who is going the whole way toward the custom market is Ken Stowell of Wichita. He thinks the speculative market is declining and is tooling up to make shop work pay. (Top photo and page 46.)



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Push Trade-in during NHM and NHW

WHEN American Builder pioneered the idea of trade-in or obsolescence selling as a possible answer to an eventual decline in the NEED market for new homes, the initial editorial discussion was based on a conversation with Dick Hughes in a hotel room in Madison, Wisconsin. Subsequent editorial references to the subject in this magazine undoubtedly have played some part in a rapidly growing interest in aggressive promotion of the idea.

Early this year, with the NEED market showing definite signs of an anticipated decline, interest in trade-in selling reached a high pitch. It was then that American Builder deployed its staff on a 15,000-mile investigation trip which produced what reader reaction has established as the famous "The Truth About Trade-Ins" story in the July issue.

Admittedly there is nothing new about the principles of trade-in selling. To quote the article, "Trading is older than Methuselah." But trade-in selling has been almost entirely motivated by the customer. The feature that is new is an awareness on the part of builders that this age-old, unstimulated trading of houses can be developed to increase the sales of new houses; to accelerate the turnover of used houses; and to force sub-standard unreclaimable houses out of existence. Intelligent promotion of obsolescence or trade-in selling could conceivably eliminate slums over a period of time.

Now, we propose that September—NA-TIONAL HOME MONTH—and NAHB's stellar NATIONAL HOME WEEK promotion during the month, offers a tailormade opportunity for a trial run of trade-in selling. To incorporate a trade-in offer all the builder or dealer needs to do is read the article in American Builder's July issue, select one or more of the trade-in plans outlined and then advertise his proposition. It will not be necessary to change any part of a National Home Month, National Home Week or Parade of Homes program to test-run the trade-in idea.

It is one thing to exhibit thousands of gleaming new homes to hundreds of thousands of active or potential prospects, and in many cases to detail a complete financing program to convert prospects into buyers. But there may not be enough first-time prospects and buyers. No one knows how many present owners would trade their present equities in older homes if they were convinced that it can be done, and that the builder has a plan to expedite a painless transaction.

It is more than possible that adoption of a sound trade-in policy, and prominent newspaper and other advertising of the policy as a feature of National Home Month or National Home Week exhibits would produce a surprising number of hitherto unsuspected prospects. It must be remembered that a large percentage of visitors to these events already own homes with which they will continue to be satisfied until some builder makes them dissatisfied and tells them how easily they can get a new one.

Let's try it. Nobody can get hurt, and maybe thousands of home buyers and home builders can reap large gains.

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TRENDS—new house costs less than in 1913

Forty years ago most people saw no practical use for the airplane, automobiles were only beginning to replace horses, radio was in the experimental stage and television hadn't been invented. You could build a six-room, two-story frame house of 1,650 square feet containing 24,000 cubic feet with one-and-ahalf baths and central heating for \$3,700, according to Roy Wenzlick, real estate economist of St. Louis.

In 1920, shortly after the end of World War I, automobiles were going into mass production, the postwar housing shortage was at its peak and the standard six-room frame house cost \$7,300, almost double the 1913 price.

By 1927, the Model T Ford was on its way to extinction in favor of more elaborate models, radio enthusiasts were demonstrating their prowess in bringing in stations that were hundreds of miles away. The house cost \$6,400, a decrease of \$900 from seven years before.

The depression had hit bottom by 1934, and things were looking up. The new six-room frame house cost \$5,100 to build. The cost had sunk to its lowest, \$4,200, in 1932, just \$500 more than the cost of \$3,700 in 1913. Only a very few brave souls built a house in 1932, however.

On the eve of United States' participation in World War II in 1941, the cost of the house had zoomed to \$7,300, back to the peak price of 1920. Price controls kept the cost at about that level through 1944. Then the really big housing shortage began to develop.

By 1948, the cost of the house had reached another peak of \$14,000, almost double the previous highs in 1920 and 1941. With the start of the Korean War and increased defense expenditures in 1950, the cost jumped another thousand dollars to \$15,000. In 1951 and 1952, general increases in wages and prices raised costs another thousand dollars to \$16,000. The latest report in the spring of 1953 shows that the cost has jumped \$400 to \$16,400.

This marks the twentieth year of constantly rising costs, and the prospects are for another increase of \$400 to \$500 by the end of this year.

Home buyers are more conscious of the increasing prices of houses than they are of any other item. They not only fail to realize that the prices of all the things they buy have doubled and tripled in recent years, but they also do not usually realize that their incomes may also have doubled or tripled. This is particularly true of the great segment of the American public who are now employed at wages of from \$60 to \$75 per week.

Actually, a production worker in manufacturing now pays less in terms of the number of weeks worked to buy a new house than he did in 1913. Roy Wenzlick has made a study which shows:

In 1913, a production worker in manufacturing would have had to pay the equivalent of 502 weeks' earnings for a standard, new sixroom frame house and lot. Today the same worker could buy an equivalent new house for his entire earnings, after taxes, for 336 weeks if he has no dependents, and with three dependents it is reduced to 296 weeks.

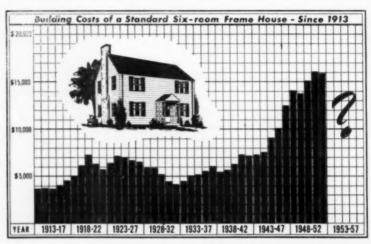
Mr. Wenzlick points out further that if the buyer did not have to pay income tax at the present time (as he did not in 1913), the cost of this house would be the equivalent of 278 weeks' earnings, or only 55.4 percent of the cost measured in earnings in 1913.

It is scarcely realized that the home building industry in 1913 was virtually a handicraft industry, and houses were expensive in terms of labor. Now, with labor-saving machinery, prefabricated window units and flooring and packaged heating units and plumbing, etc., builders are able to produce houses in a manner that compares with the production line of an automobile or appliance factory. It is not only the few large operative builders in the United States who are producing houses by the hundreds or thousands each year, who are able to do this. Smaller volume builders also use power tools and new materials to bring costs down.

A radical change in design has brought the cost of a new home to a point even lower than indicated above. The house described, which now costs about \$16,400 plus land, is more or less a luxury house. The living area of 1,650 square feet has been reduced to an area of about 1,000 square feet in today's best letr, and finds hundreds of thousands of eager buyers each year.

The result of the revolution in design is the now familiar ranch house which sells for from \$10,000 to \$13,000, including land, or even less in many localities. The public buys these houses with modest down payments, on terms of from \$50 to \$75 a month, which includes taxes, insurance and the amortization of the mortgage, giving the buyer a new home, debt free, in a period of twenty or twenty-five years. Further, he has a house that can be maintained easily and inexpensively.

This wasn't possible prior to World War I or in the 1920's, and began only in the latter part of the 1930's. The home building industry, as now organized, represents a great new economic development that has the potentiality of changing the face of America in this next decade.





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The best modern basements are poured concrete and the best concrete walls are poured in SYMONS FORMS.

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#### ON and OFF the RECORD

LYNN BOYD, the Pampa, Texas, lumberman, who was endowed with only normal physical stature but with unbounded mental height, was, with his equally endowed and supremely gracious wife, Edwina, recently accorded an unprecedented honor by the Lumbermen's Association of Texas.

THE ASSOCIATION, wishing to recognize the Boyds' long and unselfish service to the light construction industry, to the Texas association, to the city of Pampa and to the young men and women of the Texas Panhandle, turned the details of planning a suitable recognition over to Winfield and Ethel Oldham, popular Dallas couple.

OLDHAM, popular past president of the association, and his equally popular wife wrote a take-off on "This Is Your Life," current television hit, and, with the aid of a research committee, amazed the Boyds who were taken completely by surprise.

THE PROGRAM and a stunning array of awards, testimony to the unqualified affection and respect in which the Boyds are held, were presented at the association's annual convention.

AMERICAN BUILDER adds to these tokens and expressions of esteem its personal tribute to the Boyds for the great service and inspiration they have given and continue to give the industry.

THE RECENT SERIES of devastating tornadoes could have an effect on the basement versus basementless house question. A northern builder in a city not hit by a tornado states that in the past month his basementless houses are going begging for buyers. Those with basements are moving well. People want a basement or cellar for a hideout in windstorms—so they say.

THE SAN ANGELO disaster was met promptly by an offer from Armstrong Bros. to replace smashed houses with the San Angelo house for \$5,000, no down payment, \$40 a month and 20 years. J. G. HECKES, Sacramento, California, home builder, attended the spring board meeting of NAHB in Washington in May. So did about 500 other builders, but to Heckes it was a special occasion. At the age of 19 he was stationed in Washington for three months before being sent overseas to fight in World War I. That was in 1918. The trip back to the board meeting was his first in the intervening 35 years.

"IT'S DIFFERENT IN EVERY WAY," said Heckes, "and I suppose I am, too. But the most important difference is the accommodations I have here at the Mayflower compared with the wood cot I had in the corner of a barn the last time. Think I'll come again."

PRESSURE is coming from many sources to obtain rigorous enforcement of local sanitation and safety ordinances regarding housing. Chamber of Commerce of the United States recently demanded such enforcement as a matter of policy.

SLUMS ARE DUE for an all-out attack. Leaders of NAHB at both local and national levels are formulating plans not only to correct slum conditions, but also to set up criteria and regulations to prevent them.

TO THIS MAGAZINE the most potent measure for preventing the development of slums is a wide-spread educational program to inculcate a sense of pride in houses. It has long been noticeable that some slum dwellers who pay no attention whatever to the condition of their houses will spend many hours shining an automobile and tuning its engine.

MAYBE THERE IS NO parallel, but if people can be made proud of an automobile, it should be possible to make them proud of a house.

TREND toward the one-story, smokeless factory in a suburban area or a small town is here to stay, predicts Association of State Planning and Development Agencies.

(Continued on page 10)

back again!

SCHLAGE Screen and Storm **Door Lock** 

- in rust-proof, heavy gauge Luster Sealed Aluminum*

#### Designed for convenience and durability - and economically priced, too!

Schlage is again manufacturing its easy-to-install screen and storm door lock. The positive locking catch securely deadlocks the door. It can also be used to hold back the latch, converting the G300 into a convenient door pull. The simple G300 mechanism is designed for durability. Its pivothinged handles give secure latching of even badly warped doors. The lock is completely reversible for right or left hand doors. Schlage G300 locks are available for prompt delivery.

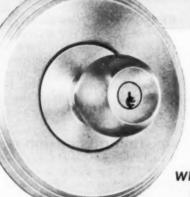


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#### On and Off the Record

(Continued from page 8)

FARMERS, says Eugene R. Andrews, Minnesota business research and development expert, find they do not need their children at home. Machinery is doing more and more of the work.

THIS PROVIDES a new pool of labor. True enough, the surplus farm help drifts to the cities, but it is often dissatisfied help. Bringing the factory to the farm area is a solution for the farmer, his children and the manufacturer.

WILLIAM H. SCHEICK, executive director, Building Research Advisory Board, National Academy of Sciences, recently said, "I want research to make me want a new house, not because it has one new picture window, but because it is a superior place to live. I want industry to keep on improving the end product so much that we must invent a process of disposing of obsolete old dwellings as a matter of course."

THAT PUTS Mr. Scheick squarely in line with current thinking throughout the entire industry. One good way to eliminate slums is to build quality from the top down. More quality on the market will simply make the slum dwellings unsalable and unrentable.

WE'D LIKE to warn our readers about photographers posing as members of the American Builder staff, or representing themselves as being commissioned by us to take photographs of building projects. Our staff members are all identified, and no professional photographer is ever commissioned to take pictures unless a prior arrangement has been made with the builder.

REASON FOR THIS warning is the experience of Felix Makwinski of Carteret, New Jersey. About a year ago an unauthorized individual representing himself as our agent took some pictures for which he charged Mr. Makwinski. Nobody ever heard of the camera man afterward.

construction markets, organ of the Chamber of Commerce of the U.S., has this to say about urban redevelopment. "For private (Continued on page 12)

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Brixment is permanently waterproofed, during manufacture, with the most effective air-entraining waterproofing agent known.

Even under pressure, water cannot readily penetrate Brixment mortar. This prevents the mortar from becoming saturated—therefore helps protect it from the destructive action of freezing and thawing, to which it is subjected many times each winter. (See Figure 1.)

In addition to making the mortar more durable, the waterproofing in Brixment gives you two *other* benefits:

#### HELPS PREVENT LEAKY WALLS

Water cannot readily pass through Brixment mortar. Therefore, if the face brick are back-plastered with Brixment mortar, an effective barrier is set up against the passage of water to the inside of the wall.

#### 2 HELPS PREVENT EFFLORESCENCE

Waterproofed Brixment mortar checks the passage of water and keeps it from percolating down through the wall, dissolving salts which may be in the masonry materials, and carrying them to the surface.

Both these advantages of waterproofed Brixment are described in other recent advertisements. Write for reprints.

Louisville Cement Co., Louisville 2, Ky.



To compare the durability of Brixment with that of any non-waterproofed mortar, make a cylinder or block of each, let both cure for a month or so, then freeze and thaw them about 15 times in your deepfreeze or refrigerator, with a little water in the pan. After a number of freezings and thawings, you will note that the cylinder of Brixment mortar (at left, in both the before and after photographs above) retains its original condition, while the cylinder of nonwaterproofed materials has badly crumbled and scaled.

#### FIGURE 2



Prepare two slabs of mortar, one with Brixment and one with ordinary cement-and-lime mortar. After mortars have hardened, seal a lamp chimney to each of the mortar slabs, using wax or candle grease, and fill with water.



After 24 hours, note how much water has gone into and through the non-waterproofed mortar, and how little water has gone into or through the Brixment mortar.



#### Helping you get new customers is his business

The job of the Classified Telephone Directory representative is to show you exactly how the 'yellow pages' can be helpful in expanding your business.

He knows a lot about people's shopping and buying habits in your town. He's also familiar with sound business-building ideas and can offer many valuable suggestions for directing more customers to you.

His experience in helping others to promote their business can be profitable for you. A few minutes of your time will prove it. Call him today at the local telephone business office.



#### On and Off the Record

(Continued from page 10)

investment the incentive is less than it was originally assumed to be, while for government, the cost is proving to be so great that the present formula cannot be considered to offer a practicable solution. If urban redevelopment is to be a long continued activity, some major changes in policy and method seem to be called for."

THE WHOLE IDEA was wrong in the first place. Experience has proved that the Baltimore Plan, a purely local activity is both sound and practical.

CURRENTLY, the eyes of the entire industry are focused on PERC in Cleveland. This is a plan whereby private enterprise, with the cooperation of the local civic government, vacates sub-standard areas and redevelops them without profit to anyone. PERC has just got a green light after more than two years of preliminary preparation.

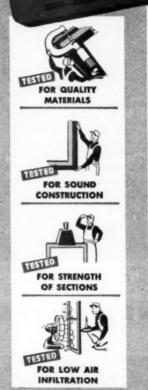
HOMEMAKERS and home builders have more in common than was generally suspected even by the most optimistic.

MRS. FRANCES THURMOND, public relations consultant, recently held a meeting of organized women's groups and home builders in which both sides learned a lot. From this point on, there is every reason to believe that home builders have gained a valuable source of public relations.

YORK-SHIPLEY, INC., York, Pa., recently called attention to the fact that four drawings illustrating four types of heating systems—forced warm air, forced hot water, two-pipe steam and one-pipe steam—in American Builder's April issue were credited to York-Shipley.

DAVID WEPMAN, merchandising manager of the company says, "The credit given our company is in error. I have been notified that the illustrations are taken from an old edition of a book called, "Heating the Home," published by the University of Illinois Small Homes Council. Please credit this splendid organization." We are pleased to make the correction.

## Do you know How THIS QUALITY SEAL APPROVED PROTECTS YOU?



WINDOWS may look alike at first glance... some may even fool experienced builders... but no window fools the testing laboratory when it comes to materials, construction, strength of sections and air infiltration.

That's why the Aluminum Window Manufacturers Association, working in close cooperation with architects, contractors and builders during the past several years, established a set of specifications and standards governing the manufacture of aluminum windows, and appointed the independent Pittsburgh Testing Laboratory to make impartial tests.

Now, when a manufacturer—(all manufacturers are eligible)—produces a window that meets these rigid specifications and the window passes all (NOT just one or two) of the tests, it may carry the "Quality-Approved" Seal.

When you buy aluminum windows—either double-hung, casement, projected or awning type—insist on windows that carry the "Quality-Approved" Seal. It's your assurance that you are getting all the advantages of strong, sturdy windows, well designed and carefully manufactured.

For further information and names of manufacturers ready to supply you with "Quality-Approved" aluminum windows, see Sweet's Builders or Architectural File or write direct to Dept. AB-8.

#### ALUMINUM WINDOW MANUFACTURERS ASSOCIATION

74 Trinity Place, New York 6, New York

Quality Approved









ALUMINUM WINDOWS



### Salles TIME...LABOR...AND DOLLARS!

This is how easy it is to install the new Eljer exposed series deck fittings . . . tighten two locknuts and make supply connections. This saves time . . . labor . . . and dollars.

This new faucet will fit any deck type sink or counter installation with supply inlets on 8" centers. The shanks are tapped ½" I.P.S. female,

Featuring Eljer's No. I renewable unit and patented swivel disc stem, all wearing parts are quickly and easily renewable. The new massive, cast spout has generous elevation for maximum clearance and integral checks to prevent spout striking backsplash. The removable soap dish is highly polished stainless steel. Spray unit is anti-siphon to meet all plumbing codes.

Another Eljer plus is the rubber seals furnished for use between the fitting and the top to prevent surface water from running down sink or top drills . . . keeps undersink compartment dry.

Your nearest Eljer Distributor will be pleased to show you how easily the deck type double sink faucet can be installed. See it today or write Eljer Co., Box 192, Ford City, Pa., for more information.



AMERICAN BUILDER

## NEWS

#### 1953 Housing Bill Passed; May Lower Down Payments

The omnibus housing bill which Congress approved in late June is different in some respects from the original bill proposed by the Administration. For one thing, Congress tacked on provisions authorizing the President to lower down payments on Section 203 mortgages.

This change permits President Eisenhower to cut FHA minimum down payment requirements to as little as five per cent on mortgages of \$12,000 or

less. He also can set a maximum maturity of 30 years. The action can be taken when he feels conditions in the home building industry and the general economy require it.

Addition of this feature to the new housing bill apparently resulted from arguments presented by the home builders. The Administration omitted any such proposal from its original bill because the Treasury and Federal Reserve Board were known to oppose lowering of down payments. These agencies said the move would be "inflationary."

Action by Congress to the contrary immediately brought a plea from the National Association of Home Builders. NAHB expressed hope for "no undue delay" by the President in putting the lower down payment provision into effect.

"These lower down payments are essential to hold the present level of housing production and prevent a building slump next year which could have grave repercussions on the entire economy," NAHB officials said.

The new housing legislation (Public Law 94) contains another provision sought by home builders. This is a prohibition against regulation of discounts by VA and FHA.

Effect of this amendment is to knock the props from under a May 18 ruling by the VA. This ruling was designed to restrict discount practices on GI mortgages sharply. VA said the new 4½ per cent interest rate eliminated the "need" for such practices.

Many builders disagreed. NAHB took the position that VA's action effectively nullified the boost in interest rates. In shaping the new housing act, Congress agreed with the builders. As a result, on July 1, the VA revoked its May 18 ruling on discounts. Congress did make clear, however, that no part of discounts may be pessed on to home buyers.

FNMA is given statutory authority in the new law to carry on its "one-for-one" plan. A time limit (July 1, 1954) is set on the authority to issue purchase contracts, and the total of such contracts cannot exceed \$500 million at any time. It is an obvious hope that this one-for-one fund will "revolve" and provide builders with a "badly-needed secondary market" for FHA and VA mortgages.

Another provision of the housing bill amends FHA Title I, Section 8. Mortgage ceilings for owner-occupants are increased from \$4,750 to \$5,700, and cannot exceed 95 per cent of value. Where the builder is the mortgagor, the \$4,250 mortgage ceiling is raised to \$5,100, not to exceed 85 per cent of value.

Public Law 94 adds \$1.5 billion in new authority to the general FHA mortgage insurance program. From this increase the President can make allocations as needed from time to time for FHA insurance programs.

Over-the-counter purchases by FNMA have been suspended since mid-April, but when purchases are resumed there will be new funds available. Public Law 94 frees about \$400 million which was previously tied up for defense, disaster and military mortgages. Meanwhile, FNMA has made no decision about resuming over-the-counter operations.

The FNMA pre-commitment authority on defense, military and disaster housing is extended until July 1, 1954, by the new housing bill. In like manner, the new legislation extends Title VIII (military housing) and Title IX (military housing) one more year.

#### Cole Begins Housing Study

HHFA Administrator Albert M. Cole has begun a two-month series of "shirtsleeve" conferences with all segments of the housing industry. His purpose is to re-examine government housing activities and develop recommendations for the future.

First of the conferences was held July 7. It marked the beginning of Cole's long-planned study of the government's "entire housing program." The study has the approval of President Eisenhower.

A letter which Cole read at the opening session spelled out the President's views:

"I expect (this) review will develop for me a series of recommendations which will clearly identify the proper role of the federal government in this field, and outline the most economical and effective means possible for improving the housing conditions of our people."

Initial conferences will be held with so-called Program Development Groups. These groups, representing the major areas of housing interest, will meet with Cole in informal, offthe-record sessions.

Cole expects these meetings to be

"creative sessions." From them he hopes to obtain proposals and ideas on "policy, program and organization."

Some meetings of the development groups will consist of representatives with a common interest in a particular problem, while others will bring in representatives with divergent points of view. Cole thinks many areas of disagreement can be eliminated.

Another part of the Cole study calls for experts in various fields to "analyze and formulate ideas into definite proposals." These proposals will be presented to the development groups for consideration.

Final step in the re-examination will be the appointment of an Advisory Review Committee to review proposals from the Program Development meetings. This final review board will consist of representatives "qualified to evaluate housing proposals in relation to the social, welfare and economic needs of the country."

Persons not invited to participate in the development group meetings may still take part in this broad-scale reexamination. Cole advises that anyone with recommendations or ideas should submit them to him in writing.

#### VA Direct Loan Program Extended Another Year

The VA direct home loan program is extended for another year under legislation signed by President Eisenhower on July 1. VA is authorized to use up to \$25 million per quarter in direct housing loans to veterans.

Interest rate on such loans is raised to  $4\frac{1}{2}$  per cent by the new law. This brings these loans in line with the regular VA rate.

VA restricts these direct loans to rural and non-metropolitan areas. It has made such loans for three years and latest reports show approximately \$293 million now outstanding.

The average direct loan runs about \$6,900. To date, VA has closed 32,300 home loans and has set aside funds for another 10,000 now in process.

Congress originally set up this program as a "revolving fund." VA was to make the loans, sell the acquired mortgages and make more loans. The mortgages have not sold, however, and new funds have regularly been added to the program.

Under the new law, the veterans' administrator has authority to lower interest rates at such time as the market may warrant.

#### FHA Reviews First 19 Years — Hollyday

The Federal Housing Administration last month began its twentieth year, and it marked the occasion with a statement reviewing the first nineteen years of this "bold experiment." Commissioner Guy T. O. Hollyday recalled that in 1934, when FHA began, the No. 1 housing problem was to get home building, repair and financing in motion again. Today, the major problem is one of "orderly, coordinated development."

"As we open up new residential areas," Hollyday said, "we must also look to the preservation and improvement of the existing inventory—the protection of neighborhoods against decay, the rehabilitation or conversion of structurally sound but functionally obsolete housing to make it suitable for present-day requirements, and ultimately the reclamation of blighted areas and slums."

Reviewing the "astonishing progress" made since 1934, the commissioner said FHA has played a vital role in stabilizing the economy, in providing good housing and in improving and repairing American homes. This work, he pointed out, has been done through private enterprise and with private capital.

During its lifetime the agency has amassed a surplus and reserve account of about \$305 million, Hollyday continued. He said he has asked Congress for authority to repay to the Treasury the money it contributed to FHA insurance funds. Repayment of this amount, approximately \$80 million, including interest, would mean that FHA programs have not cost the public a cent. Hollyday said.

FHA influence in the housing field since 1934 is indicated by the fact that the agency has written insurance aggregating nearly \$31 billion. Of this amount, about \$16.5 billion now is outstanding.

#### HHFA Slum Clearance Post Goes to James W. Follin

James W. Follin, who organized the Construction Controls Division of the National Production Authority in 1950, has been appointed director of



James W. Follin, director of the Division of Slum Clearance and Urban Redevelopment, Housing & Home Finance Agency the Division of Slum Clearance and

Urban Redevelopment of HHFA. Follin succeeds Nathaniel S. Keith, director of the division since 1949. The

change took place July 1.

The new slum clearance director was head of the Office of Contract Settlement, General Services Administration, at the time of his appointment to HHFA. He was on loan from GSA during much of the 1950-1952 mobilization program.

Just prior to and during World War II. Follin was managing director of the Producers' Council, a group of building materials manufacturers.

#### FHA Field Offices Study Trade-in Program

Four FHA field offices have been selected to gather facts which FHA can use in studying the problem of mortgage insurance for trade-in homes. The offices are those in Hartford, Conn.; Columbus, Ohio; Shreveport, La., and Washington, D.C. Industry groups are cooperating at the local level in these pilot studies, but FHA doesn't expect to have anything to report on the work for some time.

#### Ideas on Rehabilitation Are in New NAHB Booklet

Steps that any municipality can take "to organize a slum rehabilitation program and carry it through to successful conclusion" are listed in a "how to do it" booklet published by the National Association of Home Builders.

The booklet, titled "A New Face For America," lists three basic steps:

(1) Creation of a simplified housing code establishing minimum standards of health, safety and sanitation that will "put a floor of decency under every home."

(2) Administration of the code through a special department of the city government, with housing inspectors to check on violations and a Housing Court to enforce compliance where voluntary measures fail.

(3) Development of a public relations campaign to keep the community informed of progress being made.

The booklet also details the organizational procedures involved in slum cleanup—the citizens' committees and official groups that should be formed and the preparatory studies needed before starting rehabilitation work.

NAHB calls the new publication "a blueprint for action to clean up blighted housing and prevent the growth of future slums." G. Yates Cook, director of NAHB's Department of Housing Rehabilitation, prepared the booklet.

#### GI Home Loans Pass Three Million Mark

VA-guaranteed home loans have passed the 3,000,000 mark. A report by the VA shows the three millionth loan was guaranteed during May, the month in which this GI program celebrated its ninth birthday.

Average size of all GI home loans to date is \$7,371, the VA reported. Home loans total about \$19.6 billion, and the VA has guaranteed about

half of this amount.

The agency pointed out that World War II veterans have until July 25, 1957, in which to apply for GI loans under the original GI bill. Veterans with service since June 27, 1950, have ten years from the end of the current emergency.

#### Slusser Wins Senate Approval as PHA Chief

The appointment of Charles E. Slusser to head the Public Housing Administration was approved by the Senate on June 16, and Slusser took his oath of office at the White House on July 7.

#### BullDog Pushmatic. Electri-Centers

#### SYMBOL OF THE MODERN





#### Give your homes more sell!

Builders tell us that prospects frequently judge a house by a single modern, efficient feature. A BullDog Pushmatic Electri-Center—in which automatic pushbuttons replace old-fashioned fuses—is an important feature that will help swing many a sale for you.

Your customers are quick to appreciate the safe, simple-to-operate electrical protection of BullDog Electri-Centers. They're impressed when you say, "No

more fiddling with fuses!" A simple push of a button restores service after a short or overload. BullDog Electri-Centers can be installed anywhere; can be painted to match any color scheme.

You'll find that BullDog Electri-Centers will help sell your homes, too. Write today for free Bulletin PM-360. BullDog Electric Products Company, Dept. AB-83, Detroit 32, Michigan.

@ BEPCO

BULLDOG ELECTRIC PRODUCTS COMPANY



## SIGNS OF THE TIME

The key word today is "convenience." It is wrong for anyone to think that our modern architects are primarily concerned with designing homes for beauty alone. The best architects put convenience first, then beauty. Architects prefer R+O+Ws by 2 to 1.

See your local lumber dealer or write

R.O.W SALES COMPANY 1336 . . 66 ACADEMY AVENUE . FERNDALE 20, MICHIGAN



Reports by the U. S. Labor Department's Bureau of Labor Statistics and the Building Materials Division of the U. S. Department of Commerce indicate that the remodeling market will be even more important in 1953 than in 1952. Expenditures for measurable remodeling contract work, alone, amount to about 10% of new dwelling costs. Since this ratio is based only on work involving building permits, many authorities believe that 20% may be a more accurate relationship.

Why the sudden spurt in remodeling? The primary reason is that families are larger and new homes are smaller than in previous years. Families with two children are up 91% from 1940. The number of families with three children has increased 86%; with four 61%; with five 15%. During the same period the average area of new homes has decreased almost 25%.

As a result, an increasing proportion of "house prospects" are looking for the better-bargain (and larger) old homes to modernize.

As our national birth rate continues to climb, buyer resistance to "peas-in-a-pod" houses mounts steadily. An increasing proportion of those who can afford any new home are now insisting on those houses which best combine individuality, charm and value. Many builders are now leaning away from the sterner modern designs which tend to "type" homes and are blending the best of traditional charm with the functional advantages of contemporary structure. The farm-rambler shown below was recently completed by the firm of Korzon and Colvard who are now building many highlyindividualized homes in the Birmingham, Michigan area.



avertisement

Rental vacancies appear to be increasing in San Francisco, Portland and Indianapolis. As national percentages of ownership by individuals grow larger, additional areas of rental overbuilding will appear. Municipal authorities are becoming increasingly cautious about lending their support to public housing or redevelopment projects. The state of New York, where only 38% of the families own their own homes will be least affected by this shift in building requirements.

Unusual tornado activity along the East Coast and in the Mid-West has resulted in at least a temporary increase in demand for new homes with basements. In addition, some builders are offering homes with the inexpensive type basement lean-to shelters tested by civil defense officials in the two houses exposed to the Nevada Atomic explosions of last March 17th. The tests are claimed to have demonstrated that the resiliency of wood made it the best material to withstand atom blasts. Independent experiments indicate also that wood sash and frames withstand shock better than those fabricated with other materials.

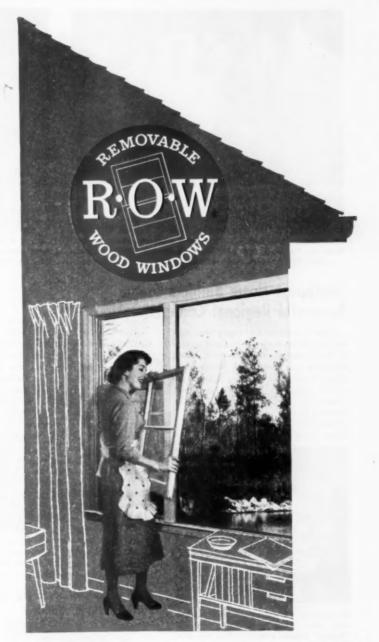


Donald Semling, president of Wisconsin Window Unit Co. at Merrill, Wisconsin, recently released aerial views of his expanded plant. Semling reports that part of this expansion was needed to take care of his increased sales of R·O·Wdouble-hung units and that additional space was needed to meet the growing demand for the new R·O·W HIGH-LITE gliding windows.

HIGH-LITES, designed for highwall installation, insure privacy in bedrooms and baths and provide additional wall space.

Mr. Semling says that builders who have used R•O•W HIGH-LITES are enthusiastic in their reports of buyer acceptance and the accelerated purchasing of homes with "the new windows which face the realities of urban living." Further information about the salesmaking HIGH-LITE horizontal windows is provided in a colorful brochure now being sent to those who request it from R•O•W Sales Company at the address shown below.

Advertisement



## LIFT-OUT WINDOWS SIGNS OF THE TIME

Eliminate the annoyance and hazard of climbing ladders to wash windows. R·O·W patented construction permits removal of the window from inside the house for easy washing, painting, or glazing indoors. And—snug-glide construction is an R·O·W exclusive.

See your local lumber dealer or write

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Region XI delegates attending the Southwest Regional Conference of Home Builders at Amarillo (I. to r.): Sylvanus Felix, Oklahoma City; Lester Prokop, president of Houston Home Builders Association; Dow Zabolio, Houston: Preston R. Piumb, Texas State Home Builders Association president. Houston; E. J. Burke, Jr., Region XI vice president. San Antonio; G. Yates Cook, NAHB Washington, D. C., staff; and Paul Wolf, Houston



Speakers' table at Southwest Regional Conference (l. to r.):
Paul L. Burkhard, treasurer, NAHB; Emanuel M. Spiegel, president, NAHB; E. J. Burke, Jr., Region XI vice president; Russell C. Showalter, president, Oklahoma City Home Builders Association; N. M. England, president, Oklahoma State Home Builders Association; R. G. "Dick" Hughes, first vice president, NAHB; Edward G. Gavin, editor, American Builder: and Nicholas F. Molnar, second vice president, NAHB

#### Southwest Home Builders Stage Successful Regional Conference

One of the most ambitious programs held in recent years under the auspices of the National Association of Home Builders took place June 7-9 at Amarillo. Texas, when the Region XI group staged its Southwest Regional Conference of Home Builders at the Herring Hotel.

Sparked by the Texas and Oklahoma State Association luncheons on



Nail-driving contest at regional conference was won by NAHB president "Manny" Spiegel himself; other nail drivers, (l. to r.); R. G. "Dick" Hughes, first vice president, NAHB; V. O. Stringfellow, secretary, NAHB; and E. J. Burke, Jr., vice president, NAHB Region XI

June 7 under their respective presidents, Preston R. Plumb and N. M. England, serving as chairmen, the conference got under way at once. On the following day, delegates were officially welcomed by Hon. S. T. Curtis, mayor of Amarillo. Response was given by E. J. Burke, Jr., NAHB Region XI vice president. The keynote address was delivered by R. G. "Dick" Hughes, first vice president of NAHB, followed by a panel discussion, "How Can We Finance One Million Homes a Year?" moderated by Hughes.

At the Monday luncheon, Edward G. Gavin, editor of American Builder, was the featured speaker. The afternoon panel, "How Can We Build Better Homes Cheaper by Taking Advantage of What We Know?" was moderated by V. O. Stringfellow, Seattle, secretary of NAHB and Joseph Entress, Rochester, N.Y., vice president of NAHB Region II.

Two panels were held on the conference's closing day, one moderated by Paul L. Burkhard, Glendale, Calif., treasurer of NAHB, the other by Nicholas F. Molnar, Olmsted. Ohio, second vice president of NAHB and Yates Cook of NAHB's Washington staff. Appropriate remarks were also delivered at the Tuesday luncheon by the national association's president, Emanuel M. Spiegel, at which Wilson H. Brown, Dallas, presided.

#### King Executive Secretary of Portland Home Builders



The Portland (Oregon) Home Builders
Association has appointed Robert L. King
as executive secretary, replacing John M.
Richardson who will continue as editor
of the Portland Home Builders Monthly
magazine

#### AIA Elects Officers at 85th Annual Convention

Clair W. Ditchy was elected president of the American Institute of Architects by delegates attending the group's 85th annual convention at Seattle. Washington, in June. Ditchy is outgoing national secretary of the institute, a post he has held since 1947. He has been in private practice in



Clair W. Ditchy, new AIA president

Detroit since 1921 and has specialized in the design of schools, hospitals and housing projects.

Norman J. Schlossman, Fellow of AIA, the Chicago architect who designed the new Park Forest Community, was chosen as first vice president. Howard Eichenbaum, architect of Little Rock, Ark., was elected second vice president. George Bain Cummings, Binghamton, N.Y., was picked as the new secretary of the institute.

The three-day annual convention also marked the semi-annual meeting of The Producers' Council, Inc., a national organization of building products manufacturers and trade associations representing producers of building materials and equipment. A total of 53 member exhibitors displayed products at the 1953 convention.

#### Hoo-Hoo Proposes National Headquarters Building

At the Denver Convention of the International Concatenated Order of Hoo-Hoo, held in September, 1952. it was proposed that a committee be appointed to investigate the possibilities of building a Hoo-Hoo headquarters to be made, as much as possible, of wood. The committee of one is Lynn Boyd, of Pampa, Texas,

In the ensuing months, the committee has explored the problem from several angles. He has suggested that besides having a Hoo-Hoo head-quarters, a so-called "Forest Products Museum" be established in the same proposed building. It was further suggested that the museum be made available to the public, showing a variety of products made from wood, to be set up as a permanent exhibit.

According to a recent report by Boyd, the erection of such a building as a national Hoo-Hoo headquarters would not be possible without the wholehearted backing of manufacturers of wood products. The investment would pay good dividends, not only in good will, but in publicity to the sustaining manufacturers.

However, the feasibility of such a building, including not only its actual erection, but also its maintenance and operational costs, is a factor which has not yet been thoroughly investigated. A further report on the progress of this idea will be given by Lynn Boyd at the 62nd Annual Convention of Hoo-Hoo, scheduled for Minneapolis, September 8-11, 1953.

#### Miami Builders Adopt Mandatory Warranty

A warranty for new home buyers and a booklet explaining the fundamentals of home ownership have been adopted by the Home Builders of Greater Miami, Fla., William M. Porter, association president, announced that both the warranty and the maintenance manual had been distributed to association members for presentation to all purchasers.

"The warranty was adopted as a condition of membership and no builder can belong to our group unless he agrees to issue this warranty on every home he builds." Porter stated.

The warranty undertakes to guarantee for a period of one year against defects in workmanship and materials in the plumbing system, the heating system (if installed), the roof against leaks, the electrical wiring system and the septic tank (if installed). It further provides for service to other component parts of the house.

#### Remodeling Association Formed in California



Governing board of Remodeling Contractors Association. Inc. (l. to r.): Fay A. Langdon. general manager; Edward Roodberg, vice president; Harold Hammerman, president; Robert Golden, treasurer; and William Wallace, attorney for the association

A group of West Coast contractors who specialize in home remodeling recently set up an organization known as the Remodeling Contractors Association, Inc. The headquarters of the group are in Beverly Hills, Calif. Membership is already close to 100 among contractors located throughout the greater Los Angeles area. The organization was founded for the

purpose of discussing the specific problems of remodeling as well as to upgrade the work of remodeling contractors and promote better public relations, since many of the labor, finance and construction problems are unlike those of contractors engaged in new building. Any general or subcontractor who specializes in remodeling is eligible for membership.



#### Dealer's Viewpoint

H. R. NORTHUP, Executive Vice President. National Retail Lumber Dealers Association

#### Dealer Training Manuals Serve as Valuable Employee Aid

The more than 200,000 men and women customers, sell the wrong materials, run materials concerns now have available prices can easily turn a net profit into a comprehensive study program which a net loss. will enable them to learn more about the business in which they are employed, the jobs they currently are filling, and the products they are selling.

The study program is presented in the create that extra profit." Dealer Training Manual, issued by the National Retail Lumber Dealers Association. The manual, which already has been purchased by 1,000 dealers, presents a program to guide individual employees in undertaking study by themselves, and another program to guide dealers who wish to conduct group training meetings for employees who are engaged in or interested in the same accept more responsibility and require types of work and products.

The text materials are the Dealer Operating Guide, which NRLDA is issu-tended to supplement, rather than reing chapter by chapter to its members, and the Building Products Dealer Data at colleges and universities by the Retail Book, the counter sales book which is available to dealers through their state or regional associations.

employees who antagonize or disappoint chandising.

who work for retail lumber and building up needless expense, or quote the wrong

"Conversely, well-trained employees always bring more sales at lower expense, and more net profit. The purpose of the Dealer Training Manual is to help

The manual also points out that the dealer whose employees are well trained has much more time to spend on his own executive duties and more time to spend devising and perfecting plans which will make his company more successful and profitable. That is because well-trained employees make fewer mistakes, make the most of their sales opportunities, can less supervision.

The Dealer Training Manual is inplace, the 30-day courses being conducted Lumber Training Institutes. Its study outlines cover the facts about every major building product and each impor-As the manual explains, "Untrained tant phase of yard operation and mer-



Cleveland's Southgate Shopping Center will face outward toward prominent highways.

J. C. Penney has signed for big center store

#### Three Cleveland Builders Start Big Shopping Center

Now being built at the intersection of Libby and Northfield Roads in Maple Heights, Ohio, is the Southgate Shopping Center, metropolitan Cleveland's newest regional shopping venture. The project is a joint promotion by three builders, Maurice Fishman of Precision Housing Corporation, Albert Siegler and Sons, and Zehman-Wolf Construction Co.

The center's initial unit is an L-shaped group of buildings offering 200,000 feet of store space. Cost of the buildings will be about \$3 million. The site is a prominent corner of 50 acres on two important highways serving the rich industrial and residential sections of southeast Cleveland.

Designed by Sidney H. Morris & Associates of Chicago, the center is not of the prevailing mall type but has been designed to face outward and thus take advantage of highway prominence, as well as to allow for future expansion. Rapid growth is

taking place in the southeast Cleveland region and Southgate Shopping Center is designed to grow with the region. The plan is eventually to build a second L-shaped unit behind the first group of buildings making a double-faced "L". M.-H.-Hausman, a Cleveland realtor, is in charge of the leasing program.

The parking standard will exceed the usual 3 to 1 ratio. Morris states that reaching a realistic parking allowance is a matter of analyzing the site, trading habits in the area and other factors. It can best be expressed by saying. "You've got to have enough parking available at the right time in the shopping cycle and not too much at other times." For Southgate, this will mean a ratio of about 5 to 1.

The three builders plan to engage in large-scale residential development on land adjacent to the shopping center. Southgate is slated to be open for business early in 1954.

#### NAHB Officer Honored by Building Fraternity

Sigma Lambda Chi, national honorary fraternity in the light building field, recently initiated its fourth national honorary member when R. B. ("Dick") Hughes, Pampa, Texas, builder and first vice president of the National Association of Home Builders, was inducted into the group in a ceremony held at Michigan State College, East Lansing, Mich. Other



R. B. Hughes

national honorary members initiated in past years are Clyde Fulton, past president of National Retail Lumber Dealers Association, Edward G. Gavin, editor of American Builder, and Stanley Horn, editor of Southern Lumberman.

The fraternity was founded in 1948 at the suggestion of Professor Paul A. Herbert, Michigan State College, and is the first collegiate honorary building fraternity. Its total membership is now over 200 and active chapters exist at Virginia Polytechnic Institute, the Universities of Wisconsin and Florida and at Denver University,

#### Douglas Fir Plywood Group Elects S. E. Thompson

S. Eberly Thompson, vice president and director of M & M Wood Working Co.. Portland, Oregon, was elected president of the Douglas Fir Plywood Association at its annual meeting held recently at Gearhart, Washington. The trade group covers an 87-factory industry membership in Oregon. Washington and California.

Others elected to 1953-54 offices in the group include H. B. Garrison, Coos Bay, Wash., vice president; R. A. Neumann, Seattle, secretary; and Arthur Berggren, Tacoma, treasurer.

The association has planned a series of advertising campaigns to triple the scope of plywood promotion during the second half of 1953. The plywood industry is currently selling panels at a figure of more than three billion square feet per year.

#### Memphis Builders Report NAHB Meeting



Members of the Home Builders Association of Memphis who reported the Spring Board of Directors Meeting to their local group (), to r.): Ted Kimbrough, Wallace E. Johnson, William D. Jemison. Jr., Memphis Association president, John Goodwin, Louis Weeks, Jr., and Manny Delugach. Guest speaker of the evening (right) was James Lendrum, director of Small Homes Council, University of Illinois

## Handy Reelected President of Acoustical Materials Association



George W. Handy, National Gypsum Co., Buffalo, N.Y., (leit) is offered the president's chair of the Acoustical Materials Association by E. S. Graybill, Armstrong Cork Co., Lancaster, Pa., AMA vice president, and Wallace Wateriall, New York, executive secretary of the organization. Handy was reelected association president at annual board of directors meeting held in May at Colorado Springs

#### Building Material Distributors Hold Spring Meeting

The Spring Meeting of the National Building Material Distributors Association. Chicago, held at Buffalo. New York, May 21 and 22. drew over 150 persons representing both building material distributors and manufacturers. Approximately 100 distributors from 24 states were present.

Membership in the association reached 119 in June. The organization started with a membership of 26 one year ago, it was stated by John P. Ashton, president. Program of the meeting consisted generally of talks on distributor problems by top-flight business executives, plus a business meeting for distributors present.

#### Florida Builder Groups Merge

The Builders Association of South Florida in Coral Gables, and the Home Builders of Greater Miami have just announced a merger of the two groups for the benefit of members of both organizations. The business office of the association will now be located in the Pan American Bank Building, Miami, under the direction of S. A. Dansyear, who has been appointed executive director of the combined group. An expanded program of activities has been laid out to meet builders' problems in the southern Florida region.

#### Dickerman's Column

John M. Dickerman, Executive Director, National Association of Home Builders of the United States



#### National Housing Center Under Way in Washington

A big forward step in the long-range development of home building in the United States has been taken with the decision by the National Association of Home Builders to begin construction of its National Housing Center in Washington, D. C.

Wrecking crews are tearing down the two buildings occupying the site chosen for the National Housing Center at a strategic location in the heart of the Capital City, within a five-minute stroll of the White House. The actual construction is scheduled to start about September 1st and the Center will open its doors in September, 1954.

The National Housing Center is the product of years of planning by thoughtful industry leaders who have long seen the need for a central headquarters in which to display the real progress that has been made in the field of housing. In this respect at least, European builders have been far ahead of their American contemporaries. For years, they have maintained just such a showplace, the Bouw Centrum at Rotterdam, Holland, as a permanent exhibit of their most advanced materials, products and designs. Indeed, the example of the Bouw Centrum played an important part in NAHB's decision to erect the National Housing Center.

It would be difficult to overestimate the impact this Center will have on the home building industry and its suppliers, as well as on the general home-buying public. Within it will be contained not only a dramatic display of every up-to-the-minute achievement in the building art, but also a vivid Futurama of products and materials still in the developmental stage that will make the home of tomorrow better than ever.

The tremendous show of interest already manifested in the National Housing Center makes it evident that the real problem is not how to attract industry participation but how to attain an equitable distribution of the available space so that the Center will be representative of the entire home building industry.

At least three, and probably more, of the nine floors in the Center will be devoted to permanent exhibits of housing design and the products, materials and equipment that go into the modern home. Every exhibit will be so flexibly designed that it can readily be changed to keep pace with the technological advances that are crowding fast into the various segments of our industry. The most complete reference library ever assembled in the home building field also will be maintained in the Center as a special service for public and professional use.

Keyed closely into the panorama of exhibits will be the Home Builders Research Institute, probably the most significant scientific undertaking in the history of home building. The Institute, which functions as a clearing house for all technological advances in the field, will make its headquarters in the Center, and its facilities will be available on the spot for research into new industry developments.

Occupying a central site in the Nation's Capital, the National Housing Center will attract visitors from every state in the Union and every corner of the earth. They will take home with them vivid proof that our home building industry and its allied producers are in the forefront of mid-Twentieth Century progress.



## NOW - the most complete



#### FITS-ALL NO. 1

NO. 1 SCREEN DOOR GRILLE

Adjustable from 18 to 37 between stiles. Made of alacrome, will not rust or tarnish.



Nu-WAY PUSH GRILLE

Use alone or with No. 1 Grille. Will not rust or tarnish. Made for both 32" and 36" doors.



### Nu-WAY O

"DELUXE"

This new 6" high push grille gives even more protection to screens. Will not rust or tarnish.



#### FITS-ALL

NO. 3 SCREEN DOOR GRILLE

For lower section of screen doors with center cross-bar. Fully adjustable from 16" to 29" between stiles.



#### FITS-ALL

NO. 5 SCREEN DOOR GRILLE

Easily adjustable for wood or aluminum, doors. Silvery satin Alacrome will not rust or tarnish.



## Nu-WAY "SUPER" PUSH GRILLE

Just what you need for aluminum doors! Sturdy and ornamental. 16" high—made for 32", and 36" doors.



SAILBOAT

#### AU-ART GRILLE ORNAMENTS

Colorful decorations for screen door grilles. Please order separately —ornaments not packed with grilles.



#### FITS-ALL

NO. 4 SCREEN DOOR GRILLE

Designed for upper section of doors. Will adjust from 191/2 to 34 between stiles.



MALLARD

#### DEALERS -- ORDER NOW! Your order will be shipped same day received!

SOLD AT ALL HARDWARE, LUMBER AND BUILDING SUPPLY DEALERS!

### selection of M-D grilles ever offered!

#### FITS-ALL

NO. FS SCREEN DOOR GRILLE

Our full size grille offers complete protection for screen doors. Fully adjustable, Fasily installed



## **NU-ART**GRILLE ORNAMENTS

Cast aluminum with colorful shadow lines. Not packed with grilles — please order separately.



#### Nu-ART GRILLE ORNAMENTS

Ideal for grilles and other decorative uses. Not packed with grilles — please order separately.



#### FITS-ALL

SCREEN DOOR
GRILLE

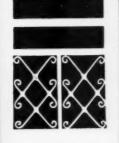
A beautiful new adjustable grille. Like all Fits All Grilles, will not rust or tarnish.



#### FITS-ALL

NO. 2 SCREEN DOOR GRILLE

Designed for doors with divided sections. Packed 12 pairs to carton.

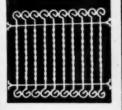






## Nu-WAY SCREEN DOOR GRILLE

Sturdy and attractive. Made of tron-black or aluminum finish — fits 30 , 32 - 36 and 42



## MACKLANBURG-DUNCAN CO. OKLAHOMA CITY 1. OKLAHOMA

#### Downs Gets Official Send-Off — Welcome

The official introduction of John R. Downs as the new executive vice president of the Chicago Metropolitan Home Builders Association took place on the evening of June 23 at the Hotel



Chicago Metropolitan Home Builders Executive Vice President John R. Downs receives plaque from Harry Cohen, president of Mason Contractors Association of Cook County

Sherman. Downs, who has served as executive secretary of the Mason Contractors Association of Cook County for the past eight years, received two plaques for his services; one from the local group, the other from the Mason Contractors Association of America. Presentation of the plaque from the Cook County group was made by Harry Cohen, president. Downs was also given a watch by the Cook County group.

Acting as master of ceremonies at the affair was Edward G. Gavin, editor of American Builder. A panel discussion, which included some 20 Chicago-area builders, answered pertinent questions relating to Chicago's building program for the remainder of the year and for 1954. These included such subjects as mortgage financing, slum clearance program, housing costs and similar builders' problems.

#### California Contractors Hold Spring Conference

More than 1,000 members of the construction industry met recently at Los Angeles for a one-day Spring Construction Conference, under the sponsorship of the Building Contractors Association of California, Inc. Robert A. Olin, Arcadia builder, was general chairman of the meeting.

Sixteen top men, representing every

phase of the building industry, led discussions on such pertinent subjects as new materials, techniques and construction devices, financing, selling, advertising, remodeling, subcontracting and land development.

The purpose of the meeting, according to Irving C. Jordan, BCA president, was "to assist the entire industry to produce better houses... to improve product and lower cost through informing all segments of the industry."

The high attendance plus the keen interest evidenced by the delegates insured the success of the affair, the first of its kind to be held by BCA. A large number of wives also attended and enjoyed the special entertainment planned for them.

#### Franks Named President Portland Cement Association

Carl D. Franks, former executive vice president of the Portland Cement Association, Chicago, has been elected president. The announcement was made by R. A. Hummel, chairman of



Carl D. Franks

the board of directors of the Lone Star Cement Corp. and the Portland Cement Association, at the association's spring meeting held in New York in May. Mr. Hummel also announced the election of G. Donald Kennedy to succeed Franks as the executive vice president, and of E. F. MacArthur as association treasurer.

#### More Builders Issuing Guarantees

Guarantees that protect new home buyers against faulty construction are now being given voluntarily by an increasing number of builders throughout the country. This evidence of a movement to insure adequate buyer protection came in response to a recent questionnaire distributed by the National Association of Home Builders to representative builders in all sections of the country.

Of the 270 builders polled by NAHB, 262 reported that they guarantee their homes against defective workmanship or materials for periods generally extending to one year or longer. The guarantees are in the form of Home Owner Service Policies assuring the buyer of the soundness of his new home, or other stipulations that the builder stands behind his product.

The 262 affirmative replies represented a cross-section of large and small volume home builders in 140 cities, covering 39 states and the District of Columbia.

Of the builders who reported a guarantee of their work, 175 stated that they accept responsibility for their workmanship and materials for one year; one for 18 months; 10 for as long as three years; two for five years; and 12 for an indefinite period of at least one year. Another 51 reported that they give six-month guarantees, and eleven said that they repair free of charge defects for which they can be properly held responsible that show up within three months after the buyer moves into his new home.

#### Murray Corporation of America Buys Eljer Company

The Murray Corporation of America has announced the purchase of the Eljer Company, Ford City, Pa., one of the leading manufacturers of plumbing fixtures. Byron C. Gould, presi-



Byron C. Gould, president of The Murray Corporation of America (center) confers with officers of The Murray Corporation and the Eljer Company: (l. to r.): David J. Crane, Robert F. Crane and Louis G. Probst, vice presidents of the Eljer Company: Thomas W. Hardy and Clarence H. Menge, vice presidents of The Murray Corporation

dent of The Murray Corporation, made the announcement from the firm's headquarters in Detroit, following the completion of negotiations with the principal owners of the Eljer Company.

Under terms of the transaction, Gould said The Murray Corporation will acquire the capital stock of the Eljer Company, representing approximately \$16,000,000. Eljer will be operated as a Murray subsidiary, to retain the Eljer name because of the prestige the 49-year-old company has enjoyed.





#### -most popular of all!

And no wonder! Ludman Auto-Lok windows have more quality features that count than any other window! They actually help builders sell houses easier, faster and more profitably because they give visible evidence of quality construction. Ludman Auto-Lok windows do not require time consuming adjustments when making installation. They cut labor costs . . . save installation time. And Ludman's patented Auto-Lok mechanism makes them the tightest closing, easiest operating window made . . . assures home-owner satisfaction.



Box 4541, Dept. AB-8. Miami, Florida

UDMAN — WORLD'S LARGEST MANUFACTURER OF AWNING WINDOWS AND JALOUSIES



TO YOUR HOMES . . . WITH



#### PRE-FINISHED PANELING

Select Grade ¾" thick (in 6" to 8" widths) Yellow pine with Eased (shiplap) joints.

#### SIMPLE TO INSTALL

Amerwood is pre-finished. With a minimum or trimming and fitting any carpenter can install Amerwood quickly and easily.

#### REQUIRES NO FINISH

Amerwood is color-toned, lecquered, waxed and buffed, to a hard, easy-to-keep surface at the plant . . . needs no painting, no sanding.

#### SIZED TO THE JOB

Amerwood can be ordered in any combination or widths and lengths to fit your particular job, regardless of size.

Give your home the "salable" features Amerwood offers. The style in decoration, the lasting beauty and effortless upkeep will be a deciding factor when you "close the sale." You'll find Amerwood ideal for any commercial installation . . . store and club interiors, offices, showroom, etc.

#### Now... In 5 New Distinctive Colors



No. 1. Umber (toest brown)

No. 2. Sun-Tint Red

No. 4. Apple Green

No. 5. Honey White

No. 7. Smokey Grey

#### CLIP THIS MEMO AND MAIL TODAY!

Amerwood, P. O. Box 391, Fort Worth Texas

Please send me free samples and literature.

Name____

Address__

City____State__

#### LETTERS

#### 350 inquiries from one ad sell 600 units

Sir: I don't know whether it was the position you gave us for Challenger (advertisement), or whether it is just the magazine itself . . . but it is absolutely amazing the pulling power your publication has. Already the client has over 350 inquiries directly from American Builder readers, in all categories . . . contractors, distributors and dealers, and as a result of these inquiries, have already sold around 600 doors!

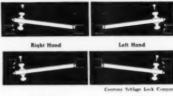
John D. Meyer, Vice President, The Albert P. Hill Co., Inc., Pittsburgh, Pa.

#### clarifying the right-left door problem

Sir: In the April issue on page 241, under the heading "Finish Hardware," the Schlage Lock Co. shows a right-hand door which is a left-hand reverse bevel door, a left-hand door which is a right-hand reverse bevel door, etc. In order to simplify the whole matter, why not change the locks and place the keys on the outside of the door? Am I correct?

Harvey B. Behnke, Appleton, Wis.

In the book "Architectural Graphic Standards" by Ramsey and Sleeper, they discuss the rule for hand of locks:



Right Hand

Left Hand

"Stand on side of door from which security is desired, i.e., the outside. If butts are on the left side of you it is a left-hand door regular, if it swings away from you. If butts are on the left side of you it is a left-hand door reverse, if it swings towards you.

"If butts are on the right side of you it is a right-han" in swings away from you. If butts

are on the right side of you it is a right-hand door reverse, if it swings towards you."

The authors have gathered this information from all of the authentic sources available, from the various hardware manufacturing companies and other related groups.

-The Editor

#### June editorial gets framed

Sir: I think you are doing a swell job. I go through your magazine page by page every month. What spurred me to write you at this time was the editorial on page 5 of the June, 1953, American Builder.

Please pass my compliments along to whoever wrote it. It was the best, most succinct, punchy and timely editorial I have ever read in the building business. I am going to hang it up on my wall as a guide to my own operation.

The moral of that editorial, to me, is that there is a time and a place for everything and today is definitely not the time for "Model T" houses or buildings.

William A. Johnson, Johnson and Botesch, Architects, Everett, Wash,

#### "build quality only"

Sir: We have been building and designing homes in this area under this same philosophy, "Build Quality Only" (Editorial, June, 1953, American Builder) and are wondering if it is possible to have permission to use this editorial along with our advertising program.

H. E. Roethlisberger, Custom Builders of Oshkosh, Oshkosh, Wis,

#### likes June issue

Sir: I have just finished going through your June issue and must say "Congratulations!" You and the editors have really done a tremendous job—the book is really something—leads the way.

A. E. Thiesfeldt, Manager, Advertising and Sales Promotion, Eljer Co., Ford City, Pa.

ord City, 1 a

#### another request for editorial reprints

Sir: I wish you would mail us 350 copies of your May, 1953, editorial on "What about Builder-Retailers?" If these are not available, will you please grant us permission to reproduce this editorial?

Harris Mitchell, Virginia Building Material Assn., Richmond 21, Va.

#### new product publicity brings sales

Sir: Our client, the Belsaw Machinery Company, and our agency spent some time analyzing the publicity you ran for us in your January issue. It has done a tremendous job in inquiries and, believe it or not, has pulled a number of sales. We are certainly more than satisfied and happy with the release. We thought you would be interested in having a testimonial eltter indicating the results were phenomenal. It certainly proves that you have a very fine publication.

John R. Lawson, President, Carl Lawson Advertising Co., Kansas City, Mo.

#### key boxes for estate salesmen

Sir: The Key Box idea has recently been adopted by this Board. The box is placed on a house listed for sale: the key to the house is placed in the box. Each realtor and each salesman has a key to open the box. This saves the salesman parking problems and the necessity for going to the office of the realtor having the property for sale to obtain the key.

This Board copied the idea from the Lansing Board of Realtors. The Lansing Board has used the idea for several years and has found it valuable.

There is also a device called Lok Box which is in use in California. I saw it demonstrated at a meeting in Chicago. This box is used by the Long Beach Board of Realtors.

Louise A. Hunsinger, Exec. Sec., Grand Rapids Real Estate Board, Grand Rapids, 2, Mich. (Continued on page 30) THE original SASH BALANCE

NO building following goes farther

because this combination sash balance and weatherstrip has been proved and tested an over 4 Million windows for more than a decade.

#### MASTER NO-DRAFT SASH BALANCE

(At left is actual photograph)

The economy of quality is inherent in this equipment. It has long been established as a sales feature innewhomes, as well as a low-cost and efficient means of modernizing windows in old homes. It is easy to install. It is durable and gives finger-tip control. It eliminates expensive box frames, pulleys, ropes, chains and weights. Requires no maintenance and will outlast the window.

#### AN "AIR CONDITIONING" MUST

Proper mechanical conditioning of temperature, in both winter and summer, requires weather protection at all openings. The weatherstrip feature of this sash balance provides an ideal seal under all atmospheric conditions against air infiltration, as well as dust and dirt.

Write today for full information. Learn why Buildershave accepted this MASTER Sash Balance and Weatherstrip unit as the standard of quality.

MASTER	METAL	STRIP	SERVICE	E, 11	NC.
1720 No.	Kilbouri	n Ave.,	Chicago	39,	Illinois

	Please send	me the	description	and	installation	data	about	Master	No-Draft	unit
--	-------------	--------	-------------	-----	--------------	------	-------	--------	----------	------

☐ I am also interested in standard weatherstrip equipment of Master quality.

NAME

ADDRESS



#### Install the glamorous



A low cost feature that adds "sell" to any home you build!

The Cascade is made of lustrous, jewel-like Plexiglas, successor to glass where appearance and safety are paramount... artistically fluted by FIAT to add sparkling splendor to any bathroom. The two rigid panels glide smoothly in aluminum track at the touch of a fingertip. Comes in Crystal Clear, Petal Pink, and Glamor Gold; fits any 5- or 5½-foot recessed tub. Every home planned for a tub shower needs this beautiful bathroom improvement. Every woman will welcome the Cascade because it eliminates the old fashioned, floppy wet curtain and really keeps water off the floor.

See Sweet's 24c in Architect's, 6b in Builder's—or write for literature and new low prices.



FIAT METAL MANUFACTURING COMPANY
Three Complete Plants: Franklin Park, III. (Chicago suburb)
Long Island City 1, New York • Los Angeles 33, California
In Canada: Porcelain and Metal Products, Ltd., Orillia, Ontario

#### letters . .

(Continued from page 29)

#### Boston agency extends account in American Builder

Sir: Due to the very gratifying return on inquiries, as well as actual orders from our American Builder advertising insertions, we are going to extend the Sterling Paint & Varnish Co.'s American Builder schedule.

I also want to take this opportunity to tell you that as account executive for this account. I personally feel that the American Builder is doing one of the most outstanding jobs in the building and trade field that I have seen to date. In particular I refer to the excellent follow-up technique used by your staff, with regard to the inquiries that come in on ads appearing in your publication. You can rest assured that the sales department at the Sterling Paint & Varnish Co. are pleased with the method that you use with regard to referring each individual inquiry to the account, with a followup reference.

R. Neily, Jr., President, R. Neily Associates, Inc., Boston, Mass.

#### credit line omitted from copyrighted material used

Sir: We note in reviewing the March issue of American Builder and the tear sheets which you sent to us that you give no credit line to Lane Publishing Co., (Technical Guide, March, 1953, "Fences—what they will do for the house," pages 44 and 46) nor do you acknowledge our copyright of the material used. I know you are aware of the seriousness of such an omission and why all publishers insist upon such protection in granting permission to reprint copyrighted material.

Donald A. Campbell, Secretary, Sunset Magazine, Lane Publishing Co., Menlo Park, Calif.

▶ This oversight was entirely unintentional. The American Builder desires to cooperate with other magazines at all times and to give proper acknowledgement of articles that are used.

-The Editor



## color enlivens street of small homes

THE colorful streets of new houses in pastel shades found in LaCrosse, Wisconsin, do not reflect a spontaneous outbreak of color-conscious buyers but rather the handiscous buyers. H. B. Bielefeld, wife of a local paint store manager.

She and her husband started a "metropolitan service" to interest builders into trading with them. The "color stylist" service they offer has builders sending buyers to the paint store for selection of both interior and exterior paint colors and wall-paper. Mrs. Bielefeld counsels on the color selections.

Most builders allow buyers to choose standard paint colors. If a buyer desires a "special," then he is charged the difference between the price of the standard and the special. Buyers can select wallpaper running as high as \$2 and \$3 a roll.

#### **Exterior Color Selection**

The color stylist checks the neighborhood to see what might be different yet not too far out of line. The brick or stone that has been used on the house affects these color selections. Size of house also is taken into consideration, Mrs. Bielefeld stated.

Most of Mrs. Bielefeld's color selections specify the use of pastel shades, either a complementary or contrasting trim, and an accent color. These are checked on a color wheel for color harmony.

An interesting note was the color stylist's statement that most people have distinct likes and dislikes and exercise good judgment in choosing colors for the interior, yet for the exterior they have little or no idea of what they want.

Buyers are attracted to the new, pastel-colored houses in LaCrosse, while interest in the older, drabber properties has fallen off.

Mr. and Mrs. Bielefeld have recently opened their own paint store. "The House of Color." Previously, Mr. Bielefeld was employed as manager of the local Sherwin-Williams paint outlet.



Typical street of colorstyled houses in LaCrosse, Wisconsin. Most of these houses were built by Raymond Brothers who say color-styling helps sales

#### how to use the color wheel

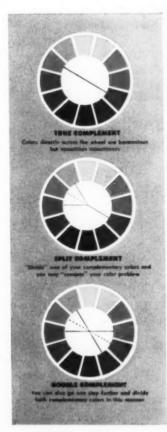
Every color—including tints or tones of all colors—belongs to one of twelve color families. Achieving harmony in color combinations is a matter of understanding these relationships. The best way to get at it is to use that ingenious device, the color wheel. By means of the color wheel, the complete color spectrum is arranged in circular form, as shown opposite. Actually, the color wheel is like a wheel having twelve spokes with a common hub of neutral gray (the color which would result if all 12 spectrum colors were mixed together in proper proportions).

Harmonious color combinations can be easily determined by applying simple formulas to the color wheel. Chief among these formulas are the ones shown on the chart opposite—triad, true complement, split complement, etc. These formulas are based on the principle that contrast is the most favorable relationship of colors. Colors opposite to one another on the color wheel are in perfect contrast and are defined as color complements.

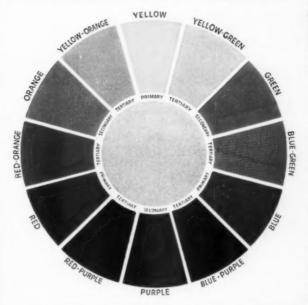
The formula to be used on the color wheel will naturally depend on the number of colors involved in the color-selection problem. In working out a color scheme for house exteriors, for example, the *triad* and *true complement* would each provide a 3-color combination (white plus two complementary colors in the true complement, three harmonious colors in the triad). In this way the right colors could easily be selected for siding, roof, and trim.

Tints and tones are the result of either raising or lowering the value of spectrum colors by adding the same amount of white or gray to them.



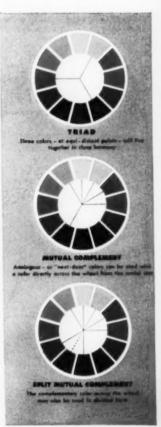


#### **RAINBOW AT YOUR FINGERTIPS**



Let the Color Wheel be Your Guide in Making
Wise Decorating Decisions

Courtesy National Paint, Varnish & Lacquer Assn.





This typical mid-western ranch house, a favorite with builders, adapts itself well to any site

#### AMERICAN BUILDER BLUEPRINT HOUSE

### here's an ALL-CLIMATE HOME

BUILDER: Robert Bartlett Building Corporation. Chicago. Illinois

> ARCHITECT: C. E. Stade, Chicago, Illinois

This is one of three model houses being offered in the Briarwood Estates, Deerfield, Illinois, for which extras at predetermined prices are available. Thus, the buyer gets the economies of mass building and some of the individuality of a customdesigned house.

Featured here is Model B which contains 1,533 square feet of floor area, including a 14 by 24-foot garage with a utility room at one end. Its sales price is \$26,140 on a 75-foot lot. The perimeter of the house is a fixed rectangle with bedrooms on one side of a center living core and the garage-utility on the other.

Exterior is of frame construction with face brick veneer on all walls up to the cornice line. Gable ends are frame with 8-inch siding. Windows throughout are double glazed. A 30-inch roof overhang protects the large windows from the glare of the sun.

(Continued on page 36)



Corner windows provide concentration of light on inside and a pleasing architectural fenestration on exterior

MORE

Combination of bleached wood and stone on fireplace mantel blends well with the pastel shades of walls and ceiling





# See Gatefold Blueprint for complete working drawings —quantity list of materials

For complete ane-quarter-inch working plans of this house write American Builder Home Plan Service, 30 Church St., New York 7. N. Y.

Left and below, two views of kitchen. Use of papered ceiling border in place of dropped ceiling over cupboards was an economy measure. A decarative feature in bathroom (below) is wood lattice-work adjoining tub. Walls are plastic tile. Above layatory is a 3-way mirrored cabinet

### (Continued from page 35)

Crawl space, provided under the first floor, is used for the ducts of the forced warm air heating system. Rigid insulation and a vapor barrier are placed on the inside of the perimeter walls.

Among the features of the house are closets lined with Peg-Board panels in which wall fixtures can be inserted. The fixtures, which include shelves on brackets and a variety of hooks and fasteners, can easily be shifted from one location to another, resulting in a closet which can quickly and simply be rearranged to meet a particular storage problem. Garage walls also are lined with Peg-Board panels for the storage of tools.

### BRAND NAME PRODUCTS USED

Art Crest plastic tile Bird asphalt shingles Cence Furnace Capr-Fibre mineral wool Framberg electric flatures Hadden-Hall parquet flauring

flouring Heatform fireplace Hell-Mark accessories Hess medicine cabinet Hines wood windows Hines plywood Insulite shoothing Itahier plumbing fixture New Landoner doors Pag Board closets Russell & Erwin hardware Russell & Erwin hardware Ruberold crawl space cover Rhoom hot water heater Brza doars Satin-Luminal paint Sto-Dri foundation paint Thermopane glass US silding doors USG plaster board Van Packer chinney Youngstown kitchen and eshauset fan





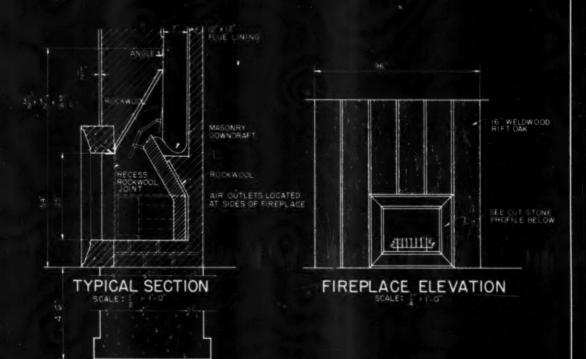
PIER DETAIL TYPICAL WALL SECTION ALTERNATE TWO BEDROOM PLAN DESIGN No. A.B. 194 AMERICAN BUILDER BLUE PRINT SERIES TERIALS

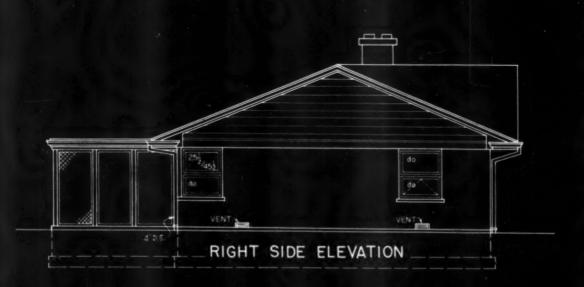


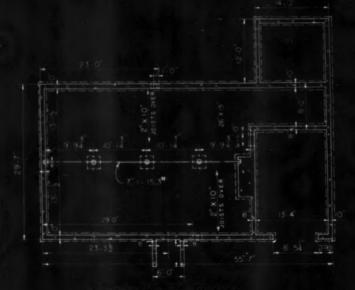




SCALES A 1 0



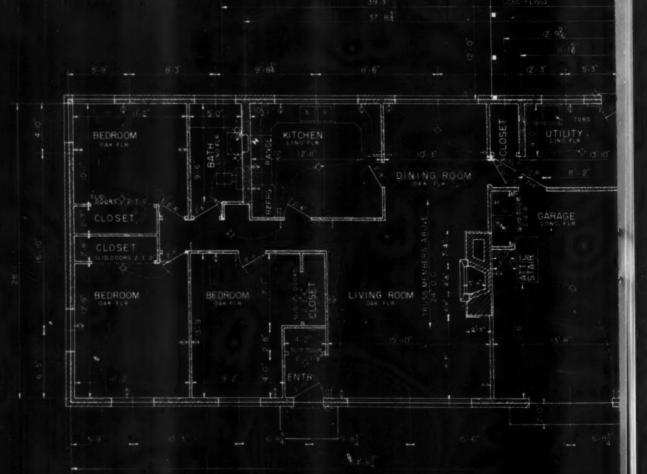




FOUNDATION PLAN



RAKE DETAIL



MAIN FLOOR PLAN

## **Quantity List of Materials**

## For American Builder Blueprint House No. AB 194

C. E. Stade. Architect

General Information	Carpentry
House — Type brick veneer Area	Beams and Girders
Cube 14,916 cu. ft.	Joists
Height taken for cube was 12 feet	2 — 2"x10" — 14'0"
Garage — Area	6 - 2"x10" - 18'0"
Cube	Bridging 90 lin. ft. 2"x10"
Height taken for cube was 10 feet	Studding and Plates
Porch — Area	40 — 2"x4" — 12'0"
roich — Area 100 sq. II.	$40 - 2^{\circ} x4^{\circ} - 16'0''$
	Ceiling Joist
Excavating	top chord, 52 — 2"x6" — 16'0"
Trench for foundation	bottom chord, 4 — 2"x6" — 20'0"
Chimney and column footings included in crawl space excavation	end rafters, 14 — 2"x6" — 16'0"
Excavation for crawl space	8 — 2"x6" — 12'0"
Vapor Barrier	web members of truss not shown or included
vapor barner	
	Framing Lintels
Cement Work	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
	2 — 2 x12 — 8 0 Subfloor
Foundations	SUBHOOF % plywood exterior grade, 1,240 sq. ft.
Concrete Work	Roof Sheathing
Thickness	
Anchor Bolts	Side Wall Sheathing
Foundation Vents 5	Side Wall Materials siding, 345 sq. ft.
Miscellaneous perimeter insulation, 510 sq. ft.	Flooring — Hardwood oak floor, 1,250 b.f.m.
	Softwood plywood, 300 sq. ft.
Masonry	NOTE: Section shows plywood subfloor and no finished wood floor
	Exterior Material
Type brick veneer	Soffits exterior plywood, 250' — 1/4"
Walls 1,040 sq. ft.	Eaves 124' — 1"x8"
Window Sills cut Bedford stone	140' — 1"x6"
Chimney	110' — 1"x4"
Flue Lining	Porches
Fireplace Cap concrete	
Fireplace	Insulation 4" insulation, 1,540 sq. ft.
Throat and Damper 1	Insulation 4" insulation, 1,540 sq. ft.
Lintels 1	
Miscellaneous 2 pair stone brackets for flower boxes	
grilles and unit for fireplace	Sheet Metal
	Gutters 114'
Iron Work	Downspouts
	Flashing
Structural	Miscellaneous
Millwork	Roofing
Windows — Type gwning and fixed sash	
Material wood	Type asphalt shingles
Windows Glazed including trim	Area 21.50 squares
all lights double glazed, 45 1/2" x 25 1/2"	Type flat deck
1 — 3 wide, 3 high	Area 1.75 squares
1 — 2 wide, 3 high	
1 — 2 wide, 1 high	Interior Wells
5 — 1 wide, 1 high	Interior Walls
5 — 1 wide, 2 high	Area to be covered
Exterior Doors — Material wood	1/2" drywall including garage
Exterior Doors flush door with panels applied, 1 — 2'10"x6'8"	., .,
flush, 1 — 2'10'x6'8"	
Garage Deer unward acting 1 - 8'0" 27'0"	

■ This quantity list will be subject to variation depending on the common practices in various sections and municipalities of the country, the techniques of individual builders, the types of materials available locally and cost factors. The list published here is a suggested one, complete enough so that it can be used in arriving at a reasonably accurate estimate of the quantities and cost of materials that will be required to complete the structure. It was prepared by experts at the Edward Hines Lumber Co., Chicago.

**Exterior Millwork** 

Louvers .

..... upward acting, 1 — 8'0"x7'0"

4 — 3' 0"x6'8" 2 — 2'10"x6'8" 1 — 2' 8"x6'8" 9 — 2' 6"x6'8" 2 — 1' 8"x6'8"

linen cases screens for porch

..... 1 peak head

Flower Boxes
Interior Doors — including jambs and trim ... 4 — 3′ 0″x6′8″

Special Interior Doors . . . . 5 pair of above are for sliding doors Special Interior Millwork . . . . . . . 1 disappearing stair to attic

## wood roof trusses can result in savings



A TRUSS is a frame, built up of members—wood or metal—so arranged that the spaces between members are triangular. Small trusses may be formed with only two triangles, while large trusses may require many members. In a truss all members work together; a load is not supported by one member alone.

In conventional roof construction, both the top story ceiling and the roof are designed as separate parts of the house. The ceiling joists (horizontal members) are put up first, then the rafters (sloping members) are erected; finally these are tied together.

By designing the structural members of the ceiling and roof as a roof truss, a more efficient and economical construction is possible.

By using a roof truss in small house construction, costs can be reduced because:

1. Members can be made smaller, thereby saving material.

2. The truss may be pre-assembled, thereby saving labor costs.

3. The truss can be erected rapidly and the job put under cover quickly, thereby eliminating delays due to weather conditions. Complicated scaffolding or bracing is unnecessary.

4. The truss leaves one large open room in which to work, making it possible to apply interior finish economically.

5. A truss allows the use of lightweight, nonbearing interior partitions or storage walls.

For the past several years, under the sponsorship of the Housing and Home Finance Agency, the Small Homes Council of the University of Illinois and the New York University have been conducting interesting experiments with the roof truss. Following are reports on their findings to date:

### king post truss

The king post truss, developed by the Small Homes Council and used in a group of experimental houses built by the University, is an adaptation of the small truss. This truss consists of a top and bottom chord and a center vertical member. It is planned for spans of 16 feet 8 inches up to 20 feet 8 inches for a 5-12 roof pitch and spaced 24 inches on centers.



The pre-assembly of the truss can be done on a jig table or subfloor. Lumber, accurately cut, can be prepared ahead of the assembly operation to speed the process still further.

### one-and-one-half-story truss

This type of truss, developed by the Small Homes Council under a grant from HHFA, offers all the ad-



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vantages of normal truss construction and provides maximum living space in the roof area.

The Technical Guide section of the May, 1953, American Builder shows step-by-step development, construction and use of the one-and-one-half-story roof truss.

### demonstration houses built by University

The New York University conducted a test to demonstrate techniques for constructing low-cost houses at a saving in time and materials without a corresponding reduction in quality.

In this case the builder permitted the University to redesign his "control house," which was built the "old way," into a "demonstration house" using time-saving methods and materials. The same builder with the same men built both houses. This report covers the roof construction only.

The builder's control house used conventional joist and rafters—it was built just as the contractor had always built a house.

The demonstration house was carefully engineered—the roof plan was modified—gables replaced hips and the roof pitch was reduced from the 6/12 pitch of the first house.

The over-all time consumed in the first house was 62 man-hours, and the crew varied from two to four carpenters.

The over-all time consumed to frame the roof of the second house was only 44 man hours—and a crew of two carpenters did all the work.

In general, the construction of this truss follows the method employed in the design of the "W" truss, except that guessets are provided at the heel and apex of truss for additional stiffening.



Scrap wood blocks nailed along truss outline for jigs



Pattern of truss made to lay out lumber—all cut with an electric hand saw



As each truss was completed it was stacked for future use



Trusses placed in position on walls ready to be nailed



Carpenters standing on opposite walls lift trusses into place



Framing clips hold trusses in their proper positions



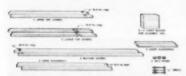
Connection of 12 and 20-foot trusses for gabled extension to main roof



Roof lines of demonstration house indicate change of roof pitch and installation of gables instead of hips



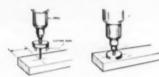
Construction of a "W" truss



Cut all members for one truss for span.

Work from one end of the piece only.

Lengths given will provide sufficient lap
for the required number of nails



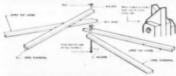
Drill for split-ring connectors



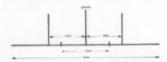
Make two identical heel assemblies—one for each end of the truss. Insert split ring and bolt



Seat ring in groove of one member for split rings. Set second member in place. Ring is seated in grooves in both members



Make one peak joint assembly



Construct jig on subfloor, lay out chalk line equal to span and divide

### the "W" truss

The "W" truss is designed to offer many advantages:

1. It may be used for spans 20 feet 8 inches to 32 feet 8 inches out to out of plates.

2. Ring connectors can be used at the highly stressed joints.

3. It eliminates need of splice plates, gussets or filler blocks.

4. It allows trusses to be subassembled (by semi-skilled labor) without concern for "lefts" and "rights."

5. When sub-assembled, trusses can be stored in minimum space,

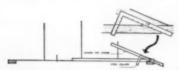
6. It is possible to complete subassemblies off the site in advance and truck them in, without use of large or special equipment.



Nail 2x4 blocks to equal the span



Set heel assembly on right end of chalk line so notch in lower top chord fits against block



Move lower top chord until steel square shows a slope of 5 to 12

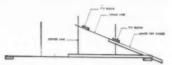
7. It is possible for lumber yards and mills to cut and sub-assemble these trusses for any span upon order from builders.

8. The final assembly of parts can be made quickly upon the subfloor of the building.

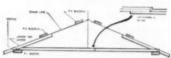
9. In doing volume building, the sub-assembled trusses can be stocked in standard spans.

10. Truss can be assembled as two identical halves. Final assembly would consist of inserting one ring and bolt and nailing one splice.

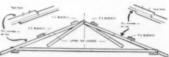
The "W" truss is designed for two series: One where no attic storage is possible; the other to carry an attic storage load of 20 psf. Trusses are developed for a 5-12 pitch and spaced 24 inches on centers.



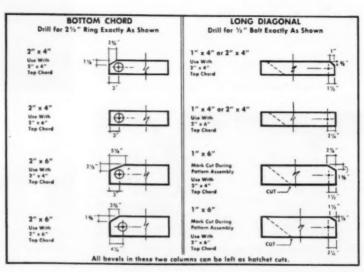
Run chalk line along top edge of lower top chord until it intersects center line. Nail blocks



Nail blocks on left side in the same way



Place peak joint and open so that top members go to the left and bottom members go to the right. Place upper top chords against blocks



### MEMBER SIZES (TOTAL LUMBER NEEDED FOR TRUSS)

NO ATTIC STORAGE

Use 1100 p.s.i. stress grade (#2 Douglas fir or better).

ATTIC STORAGE

SPAN D	21' 22' 2	23' 24'	25'	26' 27'	28' 29	30'	31'	32'
Two Upper Top Chords	One 2"x4"x14"	2" x 4"			Dne 5" x 18"	2" x 6"		Two 2" + 6" + 12"
Two Lower Top Chords*	7we 2" x 4" s		Yuo 2" = 4" = 12"	2		we "x14"		
Two Bottom Chords	Two 2"x4"x12"		1wo 4" x 14		7ws 2" x 4" x 1	6'	Twe 2" x 4" x 18	
Two Short Diagonals	One 1" x	x 4" x 8' One		• 2" x 4" x 8" One		• 2" × 4" × 10"		
Two Long Diagonals	One 1" x 4"	× 14***	One 7 : 4 0	ine 2" x 4"	x 16'**	)ne 2" x	4" x 1	8.00

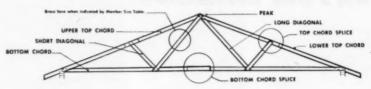
SPAN D	21' 22'	23"	24' 25	26' 2	7' 28'	29' 30'	31' 32'		
Two Upper Top Chords	One 2"x4"x14"	2"	One x 6" x 16"		One 6" x 18"	7we 2" x 6" x 10"			
Two Lower Top Chords*	One 2"x4"x18"	Twe 2" x 6" x 12'					Twe 2"x6"x14		
Two Bottom Chords	7 m o 7 m o 2" x 4" 2" x 6" x 12" x 13"	2	Two	4'	7we 2" x 6" x		Twe 2" x 6" x 18		
Two Short Diagonals	One 1" x 4"	x 8"	One 2"	x 4" x 8"	0	ne 2" x 4"	• 2" x 4" x 10"		
Two Long Diagonals	One 1" x 6"	x 14"	One 2" a 4"	One 2" x	4" x 16"	One 2" x 4" x 18"			

### LOADING VALUES

SNOW: 20 p.s.f. horizontal projection WIND: 23 p.s.f. upward normal DEAD: 10.5 p.s.f. horizontal projection

STORAGE: 20.0 p.s.f.

### NAILING SCHEDULE



SPAN #	TOP CHOR	D SPLICE	SHORT DIAGON		BOTTOM CHORE		BOTTOM CHORD SPLICE		
	NO ATTIC STORAGE	ATRIC STORAGE	NO ATTIC STORAGE	ATTIC STORAGE	NO ATTIC STORAGE	ATTIC STORAGE	NO ATTIC STORAGE	ATTIC STORAGE	
20'8" or less	15 - 104	24 - 104	4 - 8d	4 - 8d	4-84	8 - 84	10 - 10d	15 - 10d	
20'9" - 22'8"	17 - 10d	26 - 10d	4 - 84	A-84	4 - 8d	9 – 8d	10 - 10d	16 - 10d	
22'9" - 24'8"	18 - 10d	29 - 104	4 - 8 <i>d</i>	4 - 10d	5 - 86	10 - 10d	11 - 10d	18 10d	
24'9" - 26'8"	20 - 10d	31 - 10d	5 - 104	4 - 10d	5 - 104	11 - 10d	12 10d	19 - 10d	
26'9" - 28'8"	21 - 104	33 - 10d	5-104	5 - 10d	5 - 10d	12 - 104	13 - 104	21 - 10d	
28'9" - 30'8"	22 - 10d	36 10si	5 - 104	5 - 104	5 - 10d	13 - 104	14 - 10d	22 - 10d	
30'9" - 32'8"	24 - 104	38 - 104	6 - 10d	5 - 10d	6-104	14 - 10d	15 - 10d	24 - 10d	

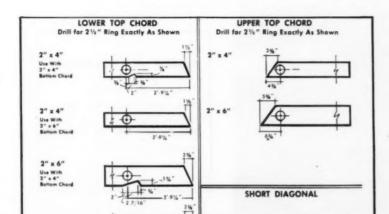
Allow bottom chords to rotate until there is a ½-inch camber. Nail #4 blocks



Swing left diagonal until it intersects the 1/3 span point. Mark cut



Lay right short diagonal to intersect the 1/4 span point at top and the 1/3 span point at bottom. Mark cut



2" x 4" Mark Cut Du



Place framing anchors as shown above



Nail framing anchors to bottom chord with triangular flange of anchor directly over center of stud

Bevel on bottom board can be left for hatchet cut

2" x 6"

## merchant builder goes after CUSTOM MARKET

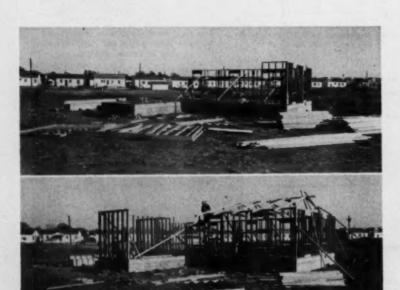


CONVINCED that the speculative market in Wichita, Kansas, is declining, Ken Stowell has switched his operation to the custom market. He will design and build on individual lots around the city of Wichita or, if need be, at reasonably distant points from the city.

He plans to adapt the operating methods that proved economical in his project work to his custom jobs, and has added a designer to staff.

To keep costs to a minimum, Stowell will operate from a central location where his own mill will precut and manufacture certain house parts. He believes this will reduce costs considerably. Savings of 20 per cent on labor and 15 to 20 per cent on trusses are expected. Scraps, formerly burned, can be utilized in the shop.

The shop is located in a 25x50foot space adjacent to Stowell's office. In 1,250 square feet of floor area, Stowell has placed a radial saw, table saw, shaper, joiner, band saw, planer, drill press and miscellaneous small tools. Investment in this equipment amounts to \$3,000.



Precut members speed erection

### LIST OF SHOP EQUIPMENT

Craftsman—12-inch planer

Delta—table saw, shaper, joiner, band saw, drill press

DeWalt-radial saw

Reminaton—stud driver

Skil—hand saws

Trusses also are precut in shop

AMERICAN BUILDER



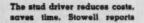
Key to Stowell's low-cost custom operation is his mill where he precuis and prefabricates house parts

Stowell maintains that he will buy any equipment that will pay its way. He figures precutting, using less expensive labor, and savings on certain items he will manufacture will save about \$400 per house. Thus he estimates he will save approximately \$12,000 on the 30 houses he will build in 1953.

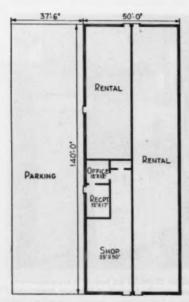
Stowell closed out his large,

high-rent, downtown offices when he moved to this centrally located building where he occupies onefourth of the total space and rents the remainder. This move has reduced his overhead to less than 3 per cent of volume.

What Stowell now offers prospective home buyers is a one-stop, custom operation.







Plywood roof sections are prefabricated at shop; reach job ready to be placed in position

AUGUST 1953

# prove you're offering the best house for the money — it clinches sales!

W ITH money tight and buyers more selective, a well-planned sales program is a must for today's merchant builder. Not only is it essential that he attract prospects to his houses through effective advertising, but while they are on his premises he should use every means available to convince them that he offers the best house for the money in the area.

To this end Raymond L. Lutgert, president of the Raymond L. Lutgert Construction Company, Chicago, supplemented an avenue of model houses at his Scottsdale Homes development with educational exhibits housed in an attractive, modern \$150,000 administration building. Since 80 per cent of the Scottsdale prospects are in the 23-33-year group contemplating buying their first homes, these displays have proved startlingly useful in helping to close sales, Lutgert reports.

They win the young buyer's confidence in the quality of Scottsdale Homes by acquainting him with the nationally advertised products used in the houses. Literature furnished by manufacturers tells him something about the products, highlights their plus features, and explains their function. Cutaway exhibits show him exactly how his house is put together. Not only does he learn what comprises a wall from the exterior to the interior, but he is shown what's beneath the finished floor and under the shingled roof. A roughed-in partition demonstrates the piping needed for the tub, shower, lavatory and water closet. Detailed wiring specifications are enlivened with cartoons which explain what adequate wiring is and why it is necessary.

Of no small interest to the young buyer is the booth on financing. What FHA does for a mortgagor, and how it protects the buyer are explained with exhibits of the standard FHA mortgage and note forms. Supplementing the FHA data are facts on the need for a title guarantee policy; a sample of the home owner's service policy; the Chicago Metropolitan Home Builders' Seal of Dependability, and the CMHB's Warranty.

In all, after a tour of the educational exhibits the young buyer knows everything he needs to know about the Scottsdale house. This is a sales aid. "We find the more they know about our house and us, the easier it is to sell them," Lutgert says. "We answer every question honestly, no matter what the question may be. Some prospects, on the basis of what they learn here, go out and ask questions of other builders. When not satisfied



Here prospective buyer can leisurely scrutinize kitchen equipment included in sales price of his home. Refrigerator is extra



Model of heating unit builder chose for his houses is supplemented with data on how it operates. Prefabricated chimney is at right



Free exhibits on financing, construction and home specifications in this modern administration building win confidence of homeseeker in operation as a whole. Later building is to become part of a \$3,000,000 shopping center

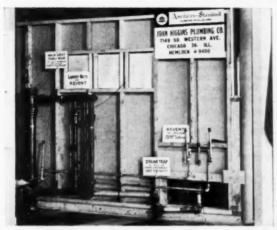
with their answers, they come back and buy from us.

"Further, we feel everyone who buys from us becomes a potential salesman. They invite friends in, tell them about the house, how it's made and the equipment included in the sale, and quite often sell them on buying in the development. We have families who have sold three and four houses for us."

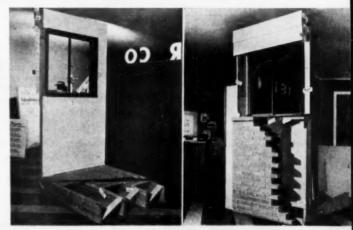
Situated on Chicago's southwest side, Scottsdale was

launched in September, 1951, with the opening of three model homes during the Chicagoland Home and Home Furnishings Festival. When completed it will be, as advertised, "a suburb within the city," comprised of over 1,000 homes and a \$3,000,000 shopping center. A public school is under construction adjacent to the community, and a Catholic school is being planned. Currently, Scottsdale boasts 500 families and 700 houses under roof.

### Next Page—Scottsdale's "House of Features"



What's behind the walls? These pipelines, prospect learns, are needed for the tub, shower, lavatory and water closet in a home



Cutaway exhibits are carefully studied, salesmen report. These show prospect how a house is put together; what goes where



Combination flat-shed roof of this model, introduced to test the market, found a ready response in young homeseekers. They prefer it to the pitch roof models offered

prove you're offering best house . . .

### Scottsdale's "House of Features"

R AYMOND L. LUTGERT chose A. J. Del Bianco, architect, to design the Scottsdale house. It is a two-bedroom unit with an L-shaped living-dining room and a flexible multi-purpose room separated from the living room by a pair of folding doors. When opened, the width of the living room is 27 feet; closed, the L-shaped living-dining room is 25 by 16 feet. If a third bedroom is needed, a solid wall replaces the folding doors at no extra cost.

This multi-purpose room was made possible by eliminating the normal utility room and placing the furnace and hot water heater in a compact closet. An automatic washer and dryer, furnished in lieu of a refrigerator and range, are located in the kitchen. Three medicine cabinets installed so that a three-way mirror results, and a counter-top lavatory are features in the bathroom. In addition, built-ins, recently added to the plan, include a wall-type clothes hamper and a fold-away bathroom scale. Shoe racks in the bedroom closets and a floor-to-ceiling book shelf and writing desk in the living room are other new built-ins. Behind the writing desk is a recess in which card tables can be stored.

The houses are sold with or without a car porch and outdoor storage locker. The car porch can be screened for summer living or used as a carport. The storage locker contains 256 cubic feet of space. Sales price of a house with a car porch and storage locker is \$13,950; without, \$13,550.

Six of the ten elevations available are on permanent display in the block immediately behind the sales office. Five of these houses (and nine of the ten elevations) have conventional roof lines. These units have 100 square feet of finished attic storage, reached by a disappearing stairway. The sixth unit, named The Moderne and featured here, has a combination flat-shed roof. Despite the fact that attic storage is non-existent in this house, Lutgert finds that this design is preferred by the young buyers.

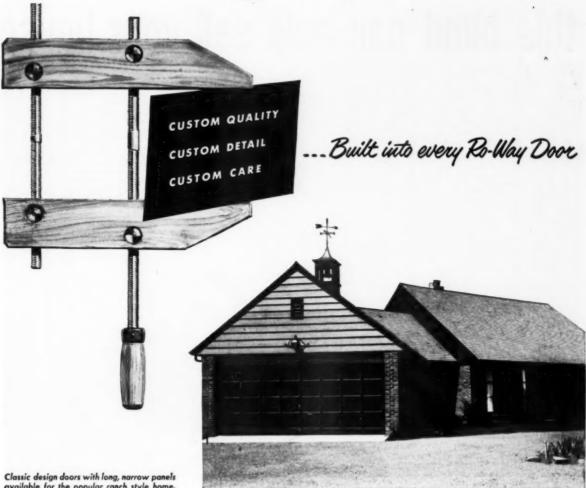


Young buyer can discuss his mortgage program more easily after studying the data posted in exhibit on FHA financing

Open plan of living area is one of the most popular features of this house. Prospects like the flexible use of space



50



available for the popular ranch style home.

Nationwide sales and

installation service. See your classified telephone directory for nearest Ro-Way distributor.

Every Ro-Way Overhead Type Door-whether for residential, commercial or industrial installation-is true custom quality, engineered and built with custom detail, custom care.

Sections and panels are selected West Coast lumber. Millwork is both drum and hand sanded to a lustrous finish. Mortise and tenon joints are both glued and steel doweled. Sections are rabbeted to assure weathertight joints. Heavy gauge steel hardware is Parkerized and painted-after fabrication-for maximum protection.

And these exclusive custom features give Ro-Way doors the ultimate in easy up-and-down operation the year around, and year after year. Smooth running, ball bearing Double-Thick tread rollers . . . Power-Metered springs matched to the weight of each door . . . Taper-Tite track and Seal-A-Matic hinges that work together to assure snug, weathertight closing. Plus superb Ro-Way styling, clean and simple to blend with any style of architecture.

Top to bottom, inside and out, Ro-Way builds its doors with custom quality, custom detail, custom care . . . yet at no extra cost! If that's what you want for your customers, specify Ro-Way-and get it.

ROWE MANUFACTURING COMPANY, 728 Holton St., Galesburg, Ill.



there's a Ro-Way for every Doorway!

## this blind can help sell your house



its brand name is the best-known in America

FLEXALUM is 5 times better known than any other venetian blind brand, according to a recent study by McCall's Magazine. The FLEXALUM name tells your prospects that you've used top-quality construction materials.

its beauty is a decorating feature in itself

Only in the all-FLEXALUM blind can all parts be perfectly color-matched. (Or you can pick contrasting colors from 165 combinations.)

The trim top and bottom bars, slim nylon cords, and unbreakable plastic tassels add extra beauty touches.

its durability can easily be demonstrated

FLEXALUM spring-tempered aluminum slats snap back to perfect shape. FLEXALUM plastic tapes wipe clean, won't fade, fray, shrink or stretch. FLEXALUM nylon tilt cords can't slip—they're locked to the foolproof mechanism.

Write for all-Flexalum sources in your area and complete architect's file.

it's the new all-

Hexalum & blind

HUNTER DOUGLAS CORP., 150 BROADWAY, NEW YORK 38, N. Y. . IN CANADA, HUNTER DOUGLAS LTD., MONTREAL 3, QUEBEC



## How to build the sales talk into the house



It's simple, really. Provide comfort-making features wanted by today's home buyers . . . like complete insulation. Use nationally advertised materials your prospects know . . . use Fiberglas* Insulation!

Then identify your homes. Explain the benefits you have provided for your buyers. Feature these benefits in your advertising. Use the "Fiberglas-insulated" signs and warranty folders.

Fire safe, sanitary, permanent and extra efficient, Fiberglas Insulation is recognized by your prospects as a sure sign of comfort, economy and quality construction.

That's because Arthur Godfrey has been explaining the superior properties of Fiberglas Insulation to them . . . week after week . . . over 32 TV stations and 186 radio stations. Featured in leading home magazines, too.

Try this method, and you'll agree: the Insulation that helps sell the house is Fiberglas! Buy it from the dealers of these industry leaders:













is in your life...for good!

*Fiberglas is the trade-mark (Reg. U. S. Pat. Off.) of Owens-Corning Fiberglas Corporation for a variety of products made of or with fibers of glass.



## 4 Powerful Reasons Why CHEVROLET ADVANCE- TRUCKS

will save money on your job ...

**EXTRA THRIFTY POWER!** The improved Loadmaster engine in heavy-duty models has new high-compression ratio (7.1 to 1) to squeeze more power... more work out of every drop of fuel. In light- and medium-duty models, Chevrolet's advanced Thrift-master engine delivers top-notch operating economy. Both give you the extra-long life and day-in, day-out dependability for which Chevrolet valve-in-head truck engines are famous.

**ENGINEERED FOR THE JOB!** Whatever you haul ... wherever you haul it, your Chevrolet truck will be factory-matched to fit your requirements. That means you get the *right* power and the *right* chassis units throughout—tires, axles, springs and clutch—to suit your roads and loads. It means a truck that will do your job more easily ... more efficiently.

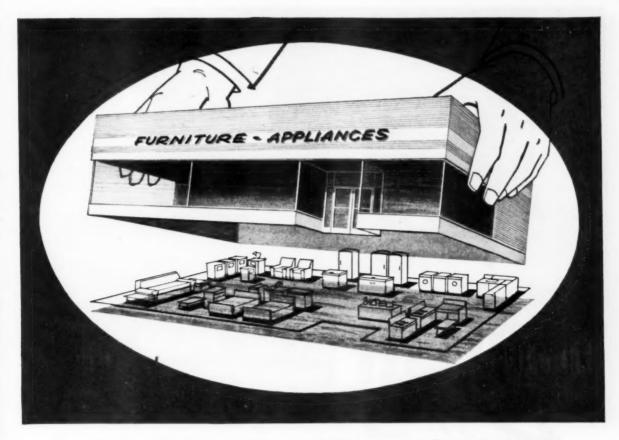
MORE RUGGEDLY BUILT! New Chevrolet trucks are stronger and sturdier than ever before. Frames, for example, are heavier and more rigid. This extra, built-in stamina means miles added to truck life and dollars subtracted from upkeep costs! Another important "plus" you get with Chevrolet trucks!

AND THEY LIST FOR LESS! No other truck offers all of Chevrolet's advance-design features . . . all of Chevrolet's money-saving advantages. Yet Chevrolet is the lowest priced truck line of all! See your Chevrolet Dealer. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

## CHEVROLET ADVANCE-DESIGN TRUCK FEATURES

TWO GREAT VALVE-IN-HEAD ENGINESthe Loadmaster or the Thriftmaster-to give you greater power per gallon, lower cost per load. POWER-JET CARBURETORfor smooth, quick acceleration response. DIAPHRAGM SPRING CLUTCH - for easyaction engagement. SYNCHRO-MESH TRANSMISSION-for fast, smooth shifting. HYPOID REAR AXLE—for dependability and long life. TORQUE-ACTION BRAKES-on light-duty and medium-duty models and on front of heavy-duty models. TWIN-ACTION REAR BRAKES -on heavy-duty models. DUAL-SHOE PARKING BRAKE-for greater holding ability on heavy-duty models. CAB SEAT-with double deck springs for complete riding comfort. VENTIPANES - for improved cab ventilation. WIDE-BASE WHEELS-for increased tire mileage. BALL-GEAR STEERING-for easier handling. UNIT-DESIGNED BODIESfor greater load protection. ADVANCE-DESIGN STYLING-for increased comfort and modern appearance.





### Here's another profitable store front market

Have you, as a builder, considered the modernization-conscious furniture and appliance retail business as a year-'round source of profits for you?

furniture and appliance stores, you can rely on Kawneer products and services. Kawneer architectural metal products, doors and entrances, and colorful Zourite aluminum facing, are the finest products for any kind of building front modernization.





Less than 1/5 of 1° variation room temperature

More Livable Space with Modern Radiant Heat

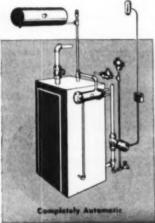
## THRUSH * Designation

## HOT WATER HEAT

BUILDS FRIENDS FOR YOU...

WHEN YOU SELL and install the most modern and economical heating system . . . Thrush Radiant Hot Water . . . you make friends and boosters for your business. Home owners appreciate the level, unvarying temperature it provides. There's no fluctuation . . . no overheating, and radiant heat is constant . . . regardless of weather changes. Forced Circulation means positive delivery of heat to every heating unit . . . and there's

plenty of hot water for kitchen, laundry or bath the whole year through. See our complete line catalog in Sweet's Architectural Files or write Dept. G-8.









Custom-built appearance with standard units. Rounded edges on doors and drawers (latest ranges and refrigerators harmonize).

Bilt-Well Nu-Style Cabinets are sectional units in graduated sizes. Manufactured of kiln-dried Ponderosa Pine completely machined, prefitted, semi-assembled



We are manufacturers of a complete line of Bilt-Well Woodwork: Superior Unit Windows, Clos-tite Casements, Overhead Garage Doors, Combination Doors, Storm & Screen Units, Basement Windows, Shutters, Exterior and Interior Doors, Entrances, Gable Sash, Louvers, Corner China Cabinets, Mantels, Telephone Cabinets and Stair Parts.

### CARR, ADAMS & COLLIER CO.

DUBUQUE, IOWA

and carton packed.

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# Holy Smokes!

Do you mean I can now put **THORN** aluminum casements in my houses at a lower installed cost* than ordinary windows?"

It's true. Add up the total cost of ordinary windows plus installation and painting. Compare it with the total cost of installing Thorn aluminum casements, which don't have to be painted.

You'll find you can now add the extra eye-appeal and buy-appeal

of Thorn aluminum windows to every house you build, at lower installed cost. It's a competitive advantage you can't afford to overlook. If your regular dealer can't supply you, write us

today for the name of the nearest dealer who can.

mail this-

Remember . . . only Thorn gives you America's most complete line of precision built Aluminum and Steel Windows . . . more than 260 standard sizes and styles quickly available through your nearby Thorn dealer.

J. S. THORN CO.

Founded 1877 * PHILADELPHIA 32, PA.
Precision-Built Steel and Aluminum Windows

J. S. THORN COMPANY
Philadelphia 32, Pa.

Please send me the name of my nearest THORN Window Dealer.

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Address

City

State

AB-8

# You can build homes that will last longer with low-cost American Welded Wire Fabric





• You can increase substantially the sales appeal of your new homes with just a few dollars invested in American Welded Wire Fabric. It reduces maintenance costs and protects all concrete slabs from destructive cracking.

Concrete foundation slabs and walls last several times longer when they are reinforced with this prefabricated reinforcing steel. It binds the concrete into a solid unit and distributes the load on it evenly. As a result, cracks, warping, and sagging—common causes of early deterioration in homes—are greatly reduced. American Welded Wire Fabric also keeps sidewalks, curbs, and driveways smooth and good looking for many years.

These are important advantages to every home buyer, and it's easy for you to offer them this extra value. American Welded Wire Fabric comes to you in convenient rolls that make it easy to handle and install. And it takes very little storage space on the job. Local jobbers and dealers can supply it quickly in any size and type you need.

For complete information, contact our nearest Sales Office.



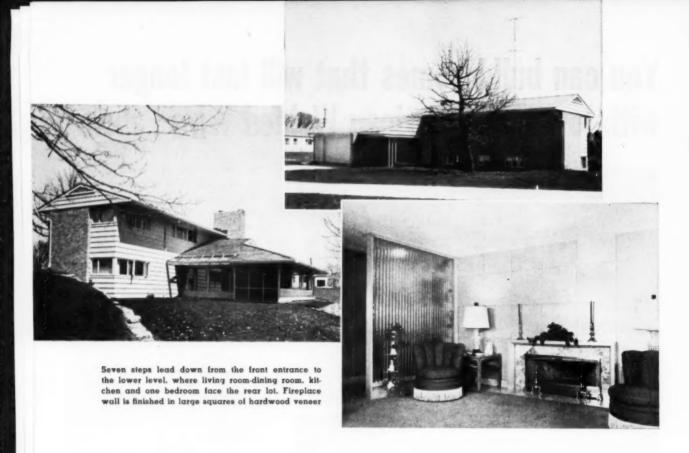
AMERICAN STEEL & WIRE DIVISION, UNITED STATES STEEL CORPORATION GENERAL OFFICES: CLEVELAND, OHIO

COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO, PACIFIC COAST DISTRIBUTORS
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA., SOUTHERN DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

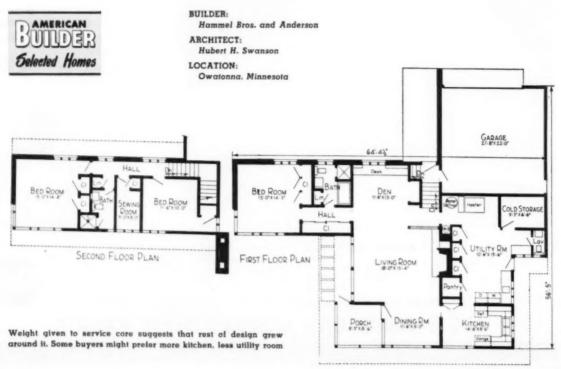
EVERY TYPE OF REINFORCED CONCRETE CONSTRUCTION NEEDS

U·S·S AMERICAN WELDED WIRE FABRIC

UNITED STATES STEEL



## a two-level house with a





One end of living room is a den, with window facing street. Glass panel screens room from steps leading from vestibule

## tri-level approach

This custom-built house on a sharply sloping lot adapts the trilevel principle of design to the demands of the site, and thereby achieves protected openness for the main living rooms.

The house actually has two levels. The street level is about midway between the two. The front entrance and garage use this intermediate level. Steps lead down to the major rooms, located on the lower level. Steps lead up to bedrooms and bathroom on the upper level.

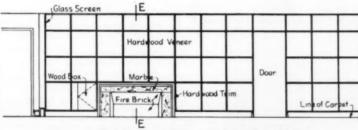
This arrangement results in the rather odd appearance of the windows in the facade, but gives the living rooms a sunny, protected rearlot exposure which is very inviting.

This handling of the site eliminates a basement, but the loss is compensated for by the unusually large utility room with its extensive storage space and extra facilities for laundry and kitchen work.

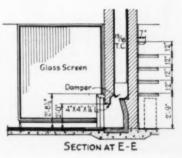
The house uses a baseboard heating system with forced hot water unit.

#### BRAND NAME PRODUCTS USED

Adams fireplace damper
American Standard plumbing fixtures
Andersen casement windows
Armstrong linoleum
Carney rockwool insulation
Corbin hardware
Formica counter tops
Minneapolis-Honeywell heating
controls
Nutone door chimes
Roddis doors
Thermopane glazed windows

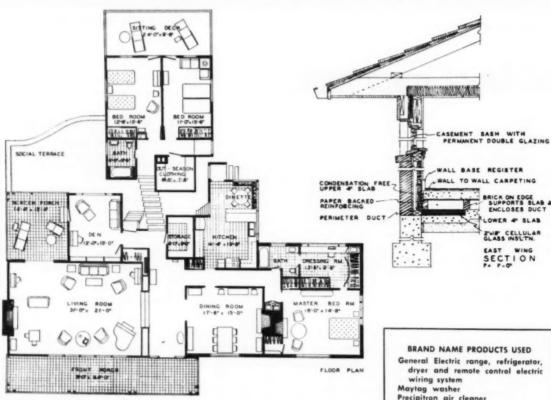


ELEVATION OF LIVING AND DINING ROOM WALL





The finished woodwork of cornice and columns on portico, complements the rough texture of roof, siding and stone walls



Plan indicates the upper level of rear wing. A two-car garage and laundry is provided at grade level under rear bedrooms

General Electric range, refrigerator, dryer and remote control electric wiring system
Maytag washer
Precipitron air cleaner
Chrysler Airtemp gas furnace
National garbage disposer
Trade-Wind ventilating fan
Mineral wool batts and Foamglass
insulation

Thermopane windows
Andersen casement windows

## 8-room multi-level house

BUILDER

Selected Homes

BUILDER

Ozier-Weller Inc., Champaian, Ill.

ARCHITECT:

William H. Kapple, Champaign, Ill.

 ${
m T}_{
m HIS}$  well proportioned house located in Champaign, Illinois, presents a one-story ranch-type design to the street and a one-and-one-half and two-story traditional design to the rear. The house contains a total area of 3,250 square feet, of which 415 are devoted to storage. The space is divided into eight rooms, including three large bedrooms, and a two-car garage. Featured motifs, which include a portico across the living portion of the front; a rear enclosed porch, and finely executed detail in fireplaces, cupboards and mouldings, are all traditional in character.

Construction features include a double concrete slab with a four-inch air space between. The upper slab is supported by bricks spaced two feet on centers and poured on paper-backed reinforcing. Hot and cool air is distributed through glazed tile ducts located below the lower slab. The air is distributed to various locations around the perimeter where it is channeled to the duct and delivered to the warm air, base-board registers.

Exterior walls are of frame construction with a combination of hand-split pre-stained siding and crab orchard stone veneer facing.

The kitchen and dinette which form one large room are separated by counter extension and built-in planters. All counters, edging for planters are ceramic tile



The multi-level plan is indicated with terrace and garage at lower level

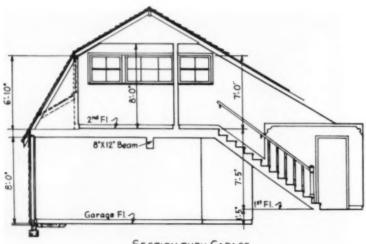




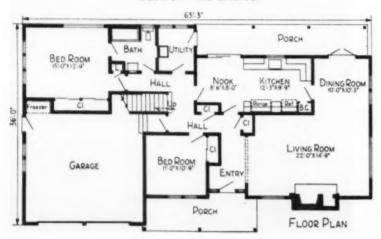


What child wouldn't like to sleep in a hayloft? Room above the garage is a children's bedroom and bath

## Something special for the children



SECTION THRU GARAGE



Houses designed to give something out of the ordinary to buyers with children are a step ahead of the competition.

One of the best ways to achieve this extra appeal is to include an all-purpose room in the plan—or sometimes it's called an activities or family room. Anyway, a room in which the children can have a play life of their own without interfering with the rest of the house.

These two houses built speculatively by Kermit and Chester Lincoln in a new tract of 44 such houses in Orinda, California, are excellent examples of what can be done with the children's room idea.

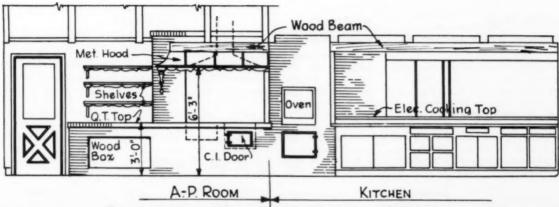
The Red Barn design cleverly uses the barn loft space for a children's bedroom with its own bathroom. The "barn" itself is the garage.

The all-purpose room in the ranch-type rambler not only suits the children, but also makes an attractive room in which parents can entertain informally on occasions. Integrated with the kitchen, the room features a brick barbecue pit, asphalt tile floor, beamed ceiling.



## adds appeal to these houses





ELEVATION OF WALL IN ALL-PURPOSE RM. & KITCHEN

## what's NEW in heating for houses?

a serial report to the light construction industry beginning in September

THE EDITORS of American Builder take great satisfaction in announcing an important series of eight articles which will analyze the present picture for residential heating systems. Covering all aspects, these articles will provide a valuable round-up, in handy form, of what every builder should know about residential heating.

We have selected two outstanding authorities to share this big assignment . . .

- S. KONZO, Professor Mechanical Engineering, University of Illinois; consultant on fuels for the Illinois Geological Survey; consultant to the National Warm Air Heating and Air Conditioning Association
- WARREN HARRIS, Research Professor of Mechanical Engineering, University of Illinois; head of the Institute of Boiler and Radiator Manufacturing

Beginning in September, Professor Konzo will contribute three articles on warm air heating. He will also discuss summer cooling of residences, in a separate article. These will be followed by articles by Professor Harris on baseboard, panel, and hot water heating, and on cooling equipment as related to hot water heating.

Outline of the Warm Air Heating articles follows:

## SEPTEMBER— Perimeter Warm Air Heating

The introduction of basementless, one-story houses built on a concrete slab floor presented a challenge to the warm air heating industry. A large number of methods were tried. The one which has turned out to be the most practical is the one in which heat ducts are embedded in the concrete slab along the perimeter of the house.

### OCTOBER-

### Crawl-Space Houses

The house provided with a crawl space has also introduced some difficulties in heating. Experiment has indicated that the heating of a subfloor space affects the comfort conditions in the rooms above. The logical extension of this experiment was to provide warm air in the crawl space. Such a proposal brings up a number of unusual problems of direct interest to builders.

### NOVEMBER-

### Small Pipe Warm Air Duct Systems

Today there is a renewal of interest in the use of small ducts for warm air heating, and a wide variety of approaches are used. Why are the present-day installations meeting with success while those of 20 years ago were failures? Is this a significant trend in development? What are the limitations?



Kyle R. Bashaw, prominent Florida builder, was convinced that Crosley equipment sells homes faster when...

## 15 OUT OF 16 HOME BUYERS INSISTED UPON **CROSLEY APPLIANCES!**

Crosley-equipped homes bring a higher price and sell faster-that's the experience of Kyle Bashaw, builder of the giant Hogan Heights Project in Jacksonville, Florida. He offered Crosley appliances on an optional basis at slightly higher cost in his low-priced homes.

Were his eyes opened! Out of his first 16 sales, 15 customers bought homes with Crosley appliances.

Like other leading builders across the country, Kyle Bashaw has learned that Crosley Kitchens give any home an impressive sales-winning touch of luxury. Crosley Cabinet Sinks, Wall and Base Cabinets possess features many prospects have never seen in kitchen equipment before . . . drawers that glide in and out smoothly on nylon runners ... doors on spring hinges that close firmly, yet quietly . . . all corners rounded on doors and drawers . . . and Vinyl-on-Steel Cabinet Tops that last a house-time.

Crosley Shelvador® Refrigerators, with across-the-top freezers and shelves built right into the door, never fail to attract favorable comment in model homes. The Crosley Automatic Electric Ranges, too, are the choice of most women. Complete with every modern automatic cooking and baking feature, they also offer the work-saving advantage of divided tops.

Before you build your next home, drop in on your nearest Crosley Distributor. Ask him to show you the complete line of Crosley Kitchen equipment. Compare the Crosley line with other brands and you'll see for yourself why there's extra sales-appeal in the heart-appeal of a Complete Crosley Kitchen.



This Crosley-equipped home in the Hogan Heights Project costs under \$10,000. Mr. Bashaw will build 350 units this year . . . plans to build nearly 3,000 more.



Here's the sales-winning heart of Mr. Bashaw's homes -the Complete Crosley Kitchen. These homes also feature Crosley TV and Room Air Conditioners. The latter often proves more popular than central air conditioning in small homes.

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Cincinnati 25, Ohio



## for better fireplaces, recommend and sell HEATFORMS* and FORM DAMPERS

• send for complete information today



HEATFORM MODEL "A"

(shown above with part of masonry cutaway)

**HEATFORM** is a double-walled metal unit (hearth to flue) around which anyone can easily build the masonry to complete a fireplace of any design.

**HEATFORM** air chambers capture and circulate through the home a large amount of heat lost up the chimney by the old-fashioned fireplace.

HEATFORM adds but little to the total cost of the finished fireplace. It consists of the firebox, throat, smoke dome and properly located damper, and thus saves labor and material.



DEPT. AB-532 1708 E. 15th St. LOS ANGELES 21, CALIF.



(REAR & SIDE VIEW)

THE ABOVE ILLUSTRATION SHOWS REAR AND SIDE VIEW OF HEATFORM Model "A" with outer lining removed. Arrows demonstrate air circulation through heating chambers and contact of air to all heating surfaces.

HEATFORM has all the good qualities of any other fire-place unit PLUS these exclusive features which produce more heat, larger volume of warm air circulation, greater heat delivery and more years of service:

- die-formed ribs in the boiler-plate firebox control metal worpage.
- heating chambers around the firebox and upper front and side walls of the throat provide greater heating surface.
- surrace.

   connecting air passages at each side of and round superheating air passages through the throat eliminate dead-air packets and assure contact of air to all heating surfaces.
- heating surfaces.

  I larger cool-air inlets and warm-air outlets and air passages at each side of and through the throat assure greater velocity of warm air circulation.
- warm air circulation.

  sloping rear outer lining,
  permits masonry downdraft shelf. No exposed
  metal parts beneath the
  chimney to rust out.

### HEATFORM MODEL "S"

(shown at left)

For the modern corner fireplace with right or left side open. Has all the features of Model "A" plus wider view of the fire.

### HEATFORM MODEL "M"

(not shown)
Both sides open, otherwise the same as

Special fabricated lintel angle bars and corner posts and custom-built drope screens are available for all models and sizes of HEATFORM.

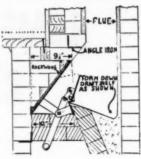


### SUPERIOR FORM DAMPER (Model "L")

-for the conventional fireplace

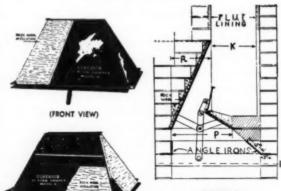
Where the extra heat produced by HEATFORM is not a prime factor, but to eliminate faulty construction of the most important part of the fireplace (the throat) we offer you SUPERIOR Form Dampers. They save their cost in labor. No forms to build, bricks to cut, or throat to plaster.

The damper is pivoted at the proper point and swings backward to an open position, preventing downdraft wind currents from entering the throat, assuring a perfect dreft with NO SMOKE TROUBLES.



The form and all parts of the Superior Form Damper are constructed of heavy plate steel for lifetime service. No brittle cast iron parts to break in shipping, handling or usage. The use of the blanket of rackwool, provided with each unit, is the only proven method of absorbing expansion of the metal to prevent cracking of masonry.

### SUPERIOR HI-FORM DAMPER MODEL "H" —for the modern fireplace



(REAR VIEW)

SECTION FIREPLACE OPENING INTO TWO ROOMS

Where the extra heat produced by HEATFORM is not important, we offer Superior Hi-Form, Model "N" Damper, especially designed for modern fireplaces using a single smoke flue; such as a fireplace with the front and one or two sides open; a fireplace opening through between two rooms; or a four-way opening fireplace supported by a mosonry pilaster at each corner. The Superior Hi-Form Damper is the only design damper we can conscientiously recommend for the modern fireplace.

Superior Form Dampers specified by leading Western architects, engineers and builders for the past 27 years to the satisfaction of everyone concerned.

*HEATFORM is the registered trade mark of Superior Fireplace Company.

SUPERIOR FIREPLACE CO.

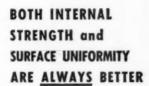
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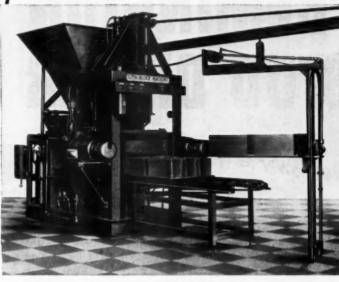
OUR EAST AND WEST COAST FACTORIES MAKE THIS MERCHANDISE QUICKLY AVAILABLE THROUGH BUILDING SUPPLY AND LUMBER DEALERS EVERYWHERE

PIONEER DESIGNERS AND MANUFACTURERS OF THE MOST EFFICIENT AND DURABLE LINE OF HEAT CIRCULATING FIREPLACE UNITS AND FORM DAMPERS.



# THERE'S AN EXTRA MEASURE OF PROFIT WHEN YOU SPECIFY BONUS QUALITY LITH-I-BLOCK





With more and more concrete masonry being used on every job, a constantly growing share of your profit is directly tied to the economies you can effect in the purchase and use of block. That's why the unique savings available to Lith-I-Block users is of the utmost importance to you.

importance to you.

Consider Lith-I-Blocks internal strength! Here, because of the precision manufacturing process, Lith-I-Block offers an even distribution of cement and aggregate that insures equal strength throughout . . . a compact, rock-like strength that gives superior service in all buildings.

The dimensional accuracy of Lith-I-Block makes it

easier to lay, ends the time-consuming labor required to true-up inferior block. Masons really appreciate this ease and speed and that shows itself in lower costs to you.

And the finished appearance of a Lith-I-Block wall pays double dividends. It gives that eye-appeal that is essential for customer satisfaction and it usually eliminates the need of costly hours spent in touch-up work. . . . especially when you are involved in modern architecture which requires exposed finished walls.

All of these savings can be yours on your next job. Just specify Lith-I-Block from your local Lith-I-Block producer. You pay no premium and you can be sure of the results.



### SEE LITH-I-TEX

Here is the perfect solution to quality construction. Beautiful Lith-1-Tex with all the sublitly of costly stone, the permanence and economy of concrete masonry. Available only through your Lith-1-Block producer.

















## LITH-I-BLOCK

PRODUCED ON MACHINES MANUFACTURED BY THE LITH-I-BAR COMPANY, HOLLAND, MICHIGAN "WE'LL BE HERE TOMORROW TO BACK UP WHAT WE SELL TODAY"

You can drive stude ARROW STRAIGHT

into steel or concrete with

MODEL REMINGTON STUD DRIVE

The widest power range of any powder-actuated tools

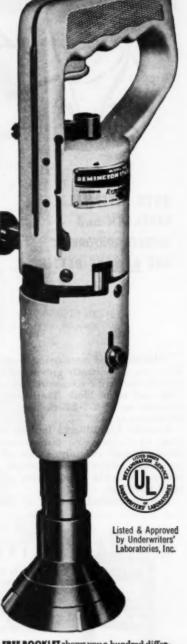
The Model 450 Remington Stud Driver is the most efficient fastening method in use today. Its exclusive advantages are unequaled by any other powder-actuated tool.

You get consistently straight driving on every type of fastening job with the long heel cap on all Remington cartridges. It acts as a perfect gas seal and provides extra power. These colored heel caps clearly mark the six different 32-caliber power loads that are available. You can select the right cartridge for each job quickly and easily.

The Remington Stud Driver needs no separate parts for power control or loading-nothing to lose or break. Just a twist of the wrist opens the Model 450. Insert stud and power cartridge as a unit . . . close and you're ready. Triple safe, this superior tool has a separate lever that must be depressed and held with one hand before and during squeezing of the trigger with the other hand. Two additional devices prevent operation except in proper fastening position

Completely self-powered, the Model 450 sets up to 5 studs per minute in fastening steel or wood structural pieces to concrete or steel surfaces. Its light weight-only 51/2 pounds-makes it ideal for use overhead or in confined spaces. To speed operation further, an exclusive ejector snaps the fired case out of the tool instantly-no fumbling, no tools needed

Test-proved to be the world's finest and speediest fastening system, the Model 450 Remington Stud Driver is made by Remington Arms Company, Inc., America's oldest sporting arms manufacturer.



-	MAIL	THIS	COUPON	TODAY -

Industrial Sales Division, Dept. AB-8 Remington Arms Company, Inc. 939 Barnum Ave., Bridgeport 2, Connecticut

Please send me my free copy of the new booklet showing how I can cut my fastening costs.

Position

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Address



NEW, FREE BOOKLET shows you a hundred different ways the Model 450 Remington Stud Driver can speed your construction fastening. Packed with illustrations, it tells you where and how this tool can save time, reduce fatigue and cut costs. Send in the coupon below for your copy.

"If It's Remington-It's Right!"

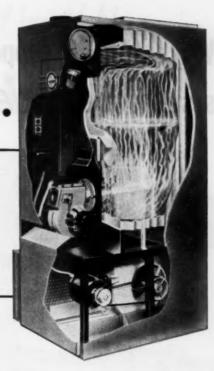


# New Chrysler Airtemp Heating ...









# PUTS "SELL" IN THE HOMES YOU BUILD!

Meet ALL of today's customer demands for modern heating in your homes with this completely new line of Chrysler Airtemp Furnaces. Uniform, filtered heat 24 hours a day... completely automatic... plus outstanding heating economy... are only a few of the potent customer selling points you can offer. But that's not all! To save you time and money, you'll find Chrysler Airtemp Furnaces are:

- Compact . . . all-new design with front flue outlet requires minimum space . . . makes closet installations easy! Narrow width permits passage through standard doors, even when crated.
- Factory-assembled . . . for lowest installation costs.

All models are factory-wired; oil burners are installed and shipped in place!

- All heat exchangers carry full 8-year warranty! Corrugated heat exchanger design gives greater heating surface for higher efficiency.
- Time-tested Chrysler Airtemp Air-Cooled or Water-Cooled Residential Air Conditioning can be easily installed with these furnaces. Or, if your customers prefer, air conditioning can be installed at a later date without expensive alterations.

Write today for all the facts on the nationally advertised Chrysler Airtemp heating line. It's time-tested!



Comfort Zone



# Chrysler Airtemp

HEATING • AIR CONDITIONING
for HOMES, BUSINESS, INDUSTRY

Airtemp Division, Chrysler Corporation, Dayton 1, Ohio

Airtemp Division, Chrysler Corporation
P. O. Box 1037, Dayton 1, Ohio

AB-8-53

Please send full details about the Chrysler Airtemp Comfort Zone.

Name

Phone

Address

City___

___State__





20-foot lengths mean that fewer joints are needed.



Entire system lightweight, easier to handle and to assemble.



Chase Solder-Joint Fittings are easily, rapidly made.

Chase Copper Water Tube—with Chase Solder-Joint Fittings—make an ideal waste, vent or soil line system...a quickly installed, more economical system that does a better job, lasts longer.

A Chase drainage system is a light-

weight system—so easy to install, yet rugged enough throughout to take plenty of hard knocks.

Your Chase wholesaler will be glad to give you full information on this *more* efficient type of drainage system.

Chase BRASS & COPPER

WATERBURY 20, CONNECTICUT - SUBSIDIARY OF KENNECOTT COPPER CORPORATION

The Nation's Headquarters for Brass & Copper

libery! Attante Seltimore Besten Chicago Cincinaeti Cleveland Dalias Dosver! Datroit Heuston Indianapelis Kansas City, Mo. Les Angeles Milwookse Himospolis Newark New Orlooss New York Philodolphia Pittsburgh Providence Rochester! St. Louis Son Francisco Saettle Weterbury (!sales office only)

## Choose the floor that's NATURALLY beautiful!

# BRUCE BLOCK

Hardwood Floor

### Modern design for smart interiors

The natural, friendly beauty of hardwood is allied with smart functional design in Bruce Block Floors.

Made of Southern Oak, whose interesting grain and rich coloring never fade, Bruce Blocks have a simple charm that complements even the most modern interior. This floor guarantees long-time economy...it will last the life of a home.

Bruce Blocks are simple to install. They can be laid in mastic over concrete, or blind-nailed over wood subfloors. And when you specify *Prefinished* Bruce Blocks, you save time and money—assure the owner a superior finish. See our catalog in Sweet's File. Write for booklet with color photos.

BRUCE

E. L. BRUCE CO., MEMPHIS 1, TENN.

Hedrich-Bienning Photo



This lovely new test kitchen of Loma Linda Foods Company was designed by Southern California Gas Company and Southern Counties Gas Company. Built-in cooking units by Western-Holly. Pomona Tile's refreshing new Perma-glaze color, "Sandalwood," was used on walls and counters. Sanitary cove tile eliminates drain deck corners. Rich 6" x 6" Morocco Brown Perma-glaze was used for the floor,

# Kitchen-Time is Care-free Time with

# POMONA Space Rite TILE

Housewives say: to know real kitchen freedom is to know the joy of sparkling easy-to-clean Pomona tile counters, walls and floors. Because, only with Pomona real clay tile can they prepare their meals with complete abandon—with no fear of damage from stains, grease or solvents. Builders say: with today's built-in appliances, burn-proof Pomona Tile is essential for maximum protection. Only real tile will withstand the heat of red hot skillets. See the smart new Pomona tile colors, shapes and sizes, today at your Pomona Tile contractor's or visit one of our showrooms listed below.

A SPICIAL FRIE SERVICE for those seeking decorating advice— Helen Trends, professional decorator, will help you in selecting color schemes for your building. For information, simply write: Helen Trends, Pomona Tile Manufacturing Co., 629 No. La Brea, Los Angeles 36, California—or call York 1177 for appointment.

#### POMONA TILE MANUFACTURING CO.

MAIN OFFICES: 629 North La Brea • Los Angeles 36, California SHOWROOMS: Seattle • San Francisco • Los Angeles • Long Beach Pomona • Phoenix • Arkansas City, Kansas



YOUR POMONA TILE CONTRACTOR is a good man to know... More than just skilled with his hands, he's designer, color expert and artisan all in one. Remember, a tile investment is protected by the best installation possible when you work with a Pomona tile contractor. Ask the closest Pomona Tile branch office for the name of your nearest tile contractor.

What Stopped Her?



THE New Empire

Gas

HEATING APPLIANCES

T'S COOL! GAS FLOOR FURNACE

NO BOOM! NO BANG! NO TICK!



GAS COOL CABINET RADIANT CIRCULATOR HEATER



THE FAMOUS

When you think of the comfort the new Empire Gas Heating Appliances give . . . the convenience they add . . . and, the time, trouble, and expense they save . . . it's easy to see why folks speak so glowingly in their praise. For here are heating appliances that are easy to install, and simple to operate. They do not require complicated adjustments or costly servicing. It's no trouble at all to keep them clean.



Gas BURNERS



SILENT AS A KITTEN WITH AN EXTRA SET OF FOOT PADS



GAS RECESSED WALL UNIT







STOVE COMPANY

BELLEVILLE, ILLINOIS

WORLD'S LARGEST MANUFACTURER OF GAS FLOOR FURNACES

# **Builder finds prospects**



This impressive home is one of forty in the Fairhill Construction Company's luxurious Nelson Park and Parklane Drive developments. The recreation room below, with its ceiling of Celotex Tile Board, proved to be an outstanding sales feature.



Beautiful, unusual rooms cost little to build with CELOTEX Insulating Interior Finishes



Add an extra room to give your new homes extra sales appeal. You can finish an additional bedroom upstairs or down at low cost, with Celotex Insulating Interior Finishes. Insulate as they build. Pre-decorated - no painting or papering!



Unusual design freedom is yours with Celotex Insulating Interior Finishes. There is almost no limit to the variety of dramatic, appealing decorative effects you can achieve through different combinations of various shapes, sizes and colors.

# "sold" on recreation room

# Achieves dramatic effects at little cost with CELOTEX Insulating Interior Finishes

"In our Nelson Park and Parklane Drive developments consisting of forty homes in the \$45,000 class, we are finishing off recreation room ceilings with Celotex Insulating Interior Finishes. Thanks to the fresh, unusual, beautiful effects achieved with your attractive tile board, these recreation rooms have proved to be a most popular selling feature."

C. G. Maloney Fairhill Construction Company Cleveland, Ohio



Unusual? No! Mr. Maloney's story is echoed by dozens of leading builders all over the country. They have found that when you use Celotex Insulating Interior Finishes in your new homes, you gain important selling advantages.

You can add an extra finished room . . . build strikingly beautiful living rooms, dining rooms, bedrooms and recreation rooms . . . faster and at substantially less cost than

by conventional methods!

Celotex Insulating Interior Finishes come in a complete range of sizes and colors—in Tile Board, Finish Plank, Building Board, Beveled Interior Board and Key Joint Units.

They are nationally advertised...known and preferred by your prospects. Write today for full information. The Celotex Corporation, Dept. AB-83, 120 S. LaSalle St., Chicago 3, Illinois.



Strike a new note of charm in living rooms, dining rooms, bedrooms and recreation rooms. You can avoid the monotony of ordinary wall and ceiling treatments—save labor and materials, too—with Celotex Insulating Interior Finishes.

Build Better . . . Build with Genuine

# CELOTEX

**Building Products** 

The Celotex Corporation, 120 South LaSalle Street
Chicago 3, Illinois

# American-Standard announces new-design plumbing fixtures

new matched styling...new utility...new sales appeal

New-DESIGN American-Standard plumbing fixtures are more beautiful, more convenient than ever. You can choose from a variety of genuine vitreous china lavatories and toilets styled to match the trim, horizontal lines of famous American-Standard cast iron bathtubs. These fixtures are also unusually convenient to use and easy to keep clean.

All embody the same top quality that makes home buyers prefer American-Standard.

New-design American-Standard plumbing fixtures are being announced to prospective home buyers in the August 17 issue of Life magazine. Be the first in your area to feature them. These beautiful, harmonizing fixtures will add to the sales appeal of any home you build.

See this new line at your American-Standard retailer's. Or write for literature, Form No. 382.



THE NEW CADET toilet harmonizes perfectly with other American-Standard fixtures, is ideal for budget bathrooms. Its smooth, graceful lines and new base design make it easy to keep glistening clean. Made of genuine vitreous china.



BEAUTIFUL AMERICAN-STANDARD FIXTURES add glamour to this practical bathroom. Notice the trim lines of the matching fixtures. This harmonizing group includes twin New Companion lavatories, a New Compact toilet and a Master Pembroke bath. American-Standard plumbing fixtures are available in white and a variety of colors.



SMARTLY-STYLED lavatory with convenient design is the New Roxbury. As in all the new-design lavatories, the bowl is wider at the front where space is needed most, then tapers to provide large soap dishes. It's made of vitreous china and features a front overflow and anti-splash rim.



THIS IS THE NEW COMRADE LAVATORY. It features a useful shelf back, integral soap dishes and smooth-working fittings finished in easy-to-keep-clean Chromard. Made of genuine vitreous china for long life, the New Comrade has a front overflow to preserve smoothness of design.



American Radiator & Standard Sanitary Corporation, Dept. AB-83, Pittsburgh 30, Pa.

Serving home and industry: AMERICAN-STANDARD . AMERICAN BLOWER . CHURCH SEATS & WALL TILE . DETROIT CONTROLS . REWANTE BOILERS . ROSS EXCHANGERS

plan an open-plan kitchen in natural birch new Curtis

Woman Designed

cabinets

New Curtis Base Island Unit has double doors on both sides so two trays and sliding table are accessible from either side. Center partition in bottom.

The new Curtis Tray Units are available in 9 widths with double doors in 24" and over. Suitable for linen or pan storage. All trays dadoed for dividers. Kitchen and laundry-or kitchen and breakfast nook-can be on intimate terms when you choose one of the new Curtis kitchens. Woman-designed, these smart, flush-faced wood cabinets embody 53 beauty and convenience features which women want. Available either in natural birch or finish-coated in white, ready for decoration, they offer you almost unlimited planning flexibility for any size or shape of kitchen. Hardware is furnished and hinges applied.



Base Square Corner Unit equipped with new style swing shelves— and how the women love them!

Step-saving hanging units have shelves accessible from both sides. Shelves have safety rests and are easily adjustable in height. The new Curtis kitchens were de-signed, tested and approved by outstanding home economists.

Get All the Facts for Your File—Mail the Coupon!

ODWO

Curtis makes a com-plete line of archi-tectural woodwork and Silentite win-dows for homes of all types and sizes. Make your next home "all Curtis." Curtis Companies Service Bureau AB-8, Curtis Building Clinton, Iowa

Please send booklet on the new Curtis woman-designed kitchens.

Name.....

City......State.....

AUGUST 1953

79

# "They stood in line two hours to see my homes featuring G-E remote control wiring"



From plans by Gustave W. Iser. A1A

"It's surprising how much sales appeal G-E remote-control wiring gives for only \$45 more than a conventional installation," says Edward Stoll.

### says builder EDWARD STOLL

"Traffic was blocked for miles the day I opened my \$17,000 model home wired with G-E remote control" says Edward Stoll, President, Edward Stoll Construction Company, Easton, Connecticut. "We tried to lock the doors at sundown but couldn't stop the crowd until after 9 P.M. I sold out two sections of the 40-house project from leads developed that first day. I'm convinced the G-E remote-control wiring played an important part in this gratifying sales volume.

"I used the remote-control wiring system to carry a prospect's interest all through the house" Mr. Stoll said. "The many silent, individual switches that G-E remote control offers, give the house a luxurious touch. And the master selector switch, which controls 9 circuits from one location, made a fine impression with convenience-minded prospects."



Master selector switch that first attracts a



Small, lightweight wire used to connect switches with relays at fixtures or outlets.



Remote-control relay operates on 24 voltsis located in or near the outlet box-does the actual switching of the 120-volt power.

#### Get the facts - write for these informative booklets

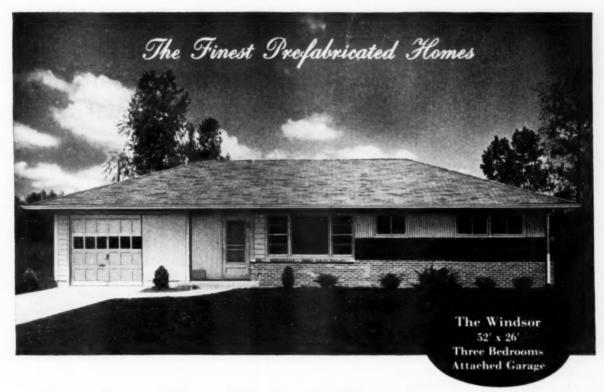
- 1. CONTRACTOR'S MANUAL-Thirty-six-page manual gives you all the facts-layout, wiring diagrams, and important installation hints. Let this booklet bring you up to date on G-E remote control.
- 2. CONSUMER BOOKLET-To explain the advantages of G-E remote-control wiring to your prospects, General Electric offers an informatve, 8-page booklet. Write for a copy of the Remote-Control Consumer booklet, and ask for information on obtaining it in quantity.
- 3. LOCAL ADVERTISING MATERIAL-A complete package of advertising material has been prepared for use with your remote-control program. Ask for this important selling aid.

For any of these aids, see your G-E Construction Materials distributor or write Section D87-82, Construction Materials Division, General Electric Company, Bridgeport 2, Connecticut.

You can put your confidence in_

GENERAL 9





# Another Fine Modern Home ... Another Quick Sale

Modern Homes are designed right, built right, and priced right for today's market—that is why they move . . . and move quickly.

They are well-planned, contemporary homes designed by experienced architects, and they are conventional homes—factory assembled by conventional methods, using the finest materials. And because Modern Homes are mass produced in an efficient manner, they are priced substantially lower than site-built homes.

### Build the Profitable Trouble-Free Way BUILD MODERN HOMES

We have openings in a number of localities for qualified builders.

If you build five or more homes a year we want to show you how you can streamline your building program into a profitable, trouble-free operation.

Write us today on your letterhead.

### A MODERN HOMES EXCLUSIVE

All exterior siding and trim back-painted and primed

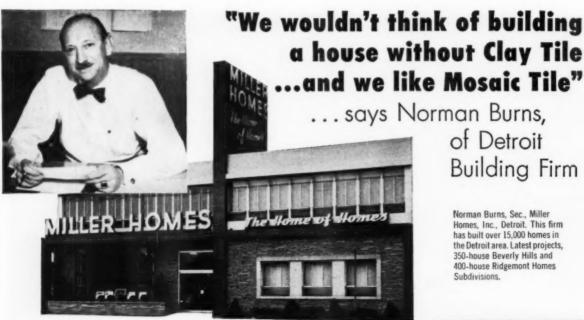
### FACILITIES EXPANDED

Two plants to serve our builders



7744 GREENFIELD ROAD . DEARBORN, MICHIGAN

Plants at Dearborn, Michigan and Port Jervis, New York



a house without Clay Tile and we like Mosaic Tile" ... says Norman Burns,

of Detroit Building Firm

Norman Burns, Sec., Miller Homes Inc. Detroit. This firm has built over 15,000 homes in the Detroit area. Latest projects. 350-house Beverly Hills and 400-house Ridgemont Homes Subdivisions.

We build to please. Always include clay tile in our homes. Our customers look for it, insist upon it.

"We use Mosaic Clay Tile exclusivelyand extensively. All of our homes have full-tile baths. Many have clay tile kitchen counter tops and wainscots. And quite a number have a clay tile hearth and vestibule.

"From experience, we've found there's no substitute for clay tile . . . no material which gives such beauty, convenience and satisfaction.

"We've found it good business to use Mosaic Clay Tile. The results? Happier customers . . . quicker sales . . . and an evergrowing list of eager-to-buy prospects,"

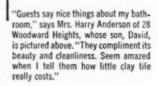
Give your customers Mosaic Clay Tile, It helps sell your houses faster, makes your buyers happier, See Mosaic Clay Tile today at your nearest Mosaic showroom, or at the showroom of your Tile Contractor. For tilefact literature, write Department 35-12. The Mosaic Tile Company, Zanesville, Ohio.

#### HOME OF MILLER HOMES

#### ALDINI TILE & MARBLE CO.. DETROIT TILE CONTRACTORS

"A once-a-week wiping is all the care I give my bathroom walls. says Mrs. Betty Anderson of 1744 Buckingham, Beverly Hills, Michigan, "We'll never have to paint or decorate-and best of all, bathroom cleaning never tires me out."

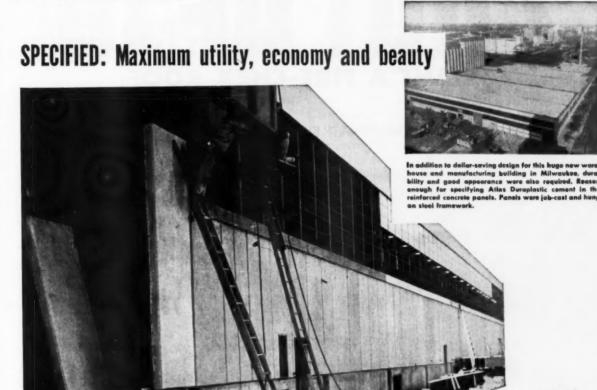






(Member-Tite Council of America) Offices, Showrooms and Warehouses across the nation Over 4000 Tile Contractors to serve you

OFFICES: Atlanta • Boston • Buffalo • Chicago • Denver • Detroit • Greensboro • Hartford • Hollywood • Little Rock • Miami • Milwaukee • Minneapolis • New Orleans New York • Philadelphia • Pittsburgh • Portland • Roseme



Designed by V. K. Boynton, Consulting Engineer Milwaukee

# 250,000 sq. ft. warehouse uses Duraplastic*made panels to meet tough "specs"

"We chose Duraplastic cement for these wall panels to insure maximum durability of the exposed concrete surfaces, along with uniform color and texture in the finish," says R. C. Knoll, vice president in charge of construction for Inland Steel Products Company. And the builder backs him up:

"Highly satisfactory results with Duraplastic," notes W. John Hufschmidt, of the Steel-Crete Construction Company, Milwaukee.

Atlas Duraplastic is a wise choice for durability because it minimizes water gain or bleeding and segregation... finished concrete is fortified against freezing-thawing weather. Duraplastic scores as well in appearance. The mix is more plastic and cohesive, with less mixing water required for a given slump. Increased plasticity aids proper placement and results in generally improved surface appearance.

Yet Duraplastic costs no more! It sells at the same price as regular cement and requires no unusual changes in procedure. Complies with ASTM and Federal Specifications. For descriptive booklet, write Universal Atlas Cement Company (United States Steel Corporation Subsidiary), 100 Park Avenue, New York 17, N. Y.

OFFICES: Albany, Birmingham, Boston, Chicago, Dayton, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco.

*"Duraplastic" is the registered trade mark of the air-entraining portland cement manufactured by Universal Atlas Cement Co.

ATLAS®

**DURAPLASTIC** 

AIR-FNTRAINING PORTLAND CEMENT

AB-D-149

Makes Better Concrete at No Extra Cost



# 7 OUT OF 10

WANT A FIRE-CHEX ROOF

SAY VETERAN CINCINNATI BUILDERS DUGAN AND MEYERS



### BUILD BETTER FOR BIGGER PROFITS WITH CAREY FIRE-CHEX!

No Other Roofing Material Offers All These Advantages.

Greater Fire Safety—Actual U. L. tests proved that Carey Fire-Chex will resist a blazing wood brand 108 times larger than the size used to test Class C shingles . . . qualified these great new shingles for the highest possible fire safety rating—Class A by Underwriters' Laboratories, Inc.

Beautiful Copyrighted Roof Designs—Only Fire-Chex Shadow-Blend shingles can be laid in exclusive copyrighted shadow blend roof designs that cannot be duplicated! Available in shadow blends of green, gray, red, brown and Shasta Snow—also rich solid shades in Velvet Black and Chocolate Brown. Years and Years More Protection— Tests under the roughest weather conditions dished up by nature—from sub-frigid cold to sizzling heat—prove that Carey Fire-Chex resist blistering, hail and wind damage far better than ordinary roofing materials.

What an array of "extras" to help you build **better** for **bigger profits!** See your Carey Dealer for samples and prices!

#### Fire-Chex Specifications:

12x36 inches—Square Butt 3-Tab—Headlap 2 inches—Exposure 5 inches—Weight: approx. 325 lbs. per sq.—Colors: Green, Red, Gray, Brown and Shasta Snow Shadow Blends. In solid colors, Velvet Black and Chocolate Brown.

Please refer to Sweets Catalog for further information or write Dept. AB-8

"You'll be pleased to know that Carey Fire-Chex asbestos - plastic shingles are the preferred roofing on the great majority of new homes we build. Once we tell folks the facts about Fire-Chex, and show samples of those beautiful blends and colors, no shingles but Fire - Chex will do. That's true even on jobs where it means spending a little more to get Fire-Chex, than for ordinary asphalt shingles. Naturally, we're sold on Fire-Chex. They run true to size--go on faster, give us more profit per job and provide greater satisfaction for our customers."

Jarome & Muyers



The Philip Carey Mfg. Co.
Cincinnati 15, Ohio
In Canada: The Philip Carey Co., Ltd.
Montreal 3, P.Q.

Buthroom Cabinets and Accessories - - Ceramo Asbestos Siding - - Fire-Guard Rock Woo! Insulation - - Other Famous Products for Home, Farm and Industry

BARBER COLMAN

Barcol.

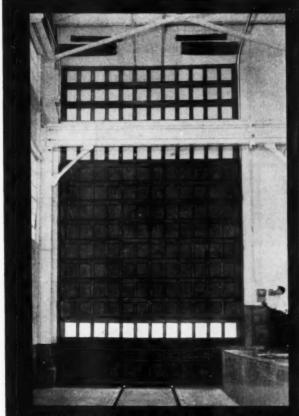
# **OVER**doors

... when you

need your doors

... high, wide and handsome

Big Barcol OVERdoors operate almost as smoothly and easily as their little brothers, because they have twin torsion coil springs designed to the exact weight of each individual door. Barcol engineers compute the door weight right down to the glass, paint, and every ounce of plated hardware to assure proper springs for correct balance. Add the patented Barber-Colman cam closing action, and your door is sure to be weather-tight yet easy working. Weigh these features—perfect balance—weather-tight closing—easy operation. Take advantage of sound engineering principles by buying from your Barcol distributor. He sells, installs, guarantees, and services—quality care for a real quality product.



HIGH is the word for this big Barcol in the railway loading room of the Beloit Iron Works, Beloit, Wisconsin—constructed 32' high to clear the overhead crane rail.



WIDE loading area is provided by these three Barcols at National Lock Company. Center door is 27' 9" wide and 14' high. Maintenance Foreman Tony Vincent says, "We have over 50 Barcol OVERdoors—some of them open and close over 250 times daily!"



HANDSOME flush door with shadowbox lites at the Tydee Dydee Service, Rockford, III. States owner L. J. Schlickman, "It works just as well as my smaller Barcol door at home!"

### **Barcol ELECTRIC OPERATORS**

Save heat, save man-hours and speed plant traffic! The Barcol Electric Operator pays for itself in a short time. Easy to install on either new or old doors. The many convenient switch arrangements include radio control installed on factory trucks or any vehicles. Electric operator prices start at \$230 f.o.b. Rockford, Illinois.



#### CALL YOUR BARCOL OVERdoor DISTRIBUTOR

(listed under "Doors" in telephone directory) or write for complete information.

BARBER-COLMAN COMPANY, DEPT. Q-38, ROCKFORD, ILL., U.S.A.

Name______Address_____

City & State

# NATIONAL HOME MONTH

builder. Just substitute National Home Month for its theme and you have a ready-made pattern for a sharp you taking advantage of NATIONAL HOME MONTH in your promotion of your own in September.

# Building a Sales

Nearing the 1,500-house mark this year in a building career which began in 1946, Marvin Helf of Cleveland decided to celebrate with a suitable promotion. In a concentrated campaign spread over four weeks, Helf presented to Clevelanders three outlying tracts of new houses in three different price ranges. One subdivision featured ranch-type houses at \$25,900, a second group aimed at the \$13,000 market; while the third tract hit an even lower bracket—\$10,000-\$12,000.

Outstanding for its thoroughness and duration, Helf's campaign was hung on the following frame, of which the members bearing the most weight are the glittering array of give-away awards and \$6,000 in advertising shared by manufacturers and suppliers:

 Four model houses (two in the middle-price subdivision) completely furnished and landscaped. Also an X-ray construction-demonstration house, 2 A set of 15 awards given away to visitors who inspected the houses during the four weeks; also, houseware awards for each home buyer during the campaign. Awards were worth winning; included a Bermuda













# Campaign Lasting 4 Weeks

vacation for two, \$1,400 in home appliances.

- 3 Newspaper advertising and publicity. Teaser ads were run in advance of the campaign, and the promotion was opened with a special four-page section of articles and all-Helf cooperative advertising in the Cleveland Press. Cost of this section-\$3,000-was completely paid for by the furnishers, manufacturers and suppliers who cooperated with Helf in the venture. Each week there were 50 column-inch pickup ads run on Wednesdays, Fridays, and Sundays. Total linage used during the campaign, including both classified and display, was 11,000. Ads featured all three subdivisions together and also the awards.
- 4 Radio and TV. Here again, cooperative advertising was Helf's approach. TV spots on





Sundays were sponsored both by Helf and the company which furnished the model houses. The Cleveland Electric Illuminating Co. invited the public, via radio and TV, to see the all-electric homes in one of the Helf subdivisions. Johns-Manville also cooperated by announcing the Helf houses in its radio news program. All told, Helf figures that this kind of cooperation on radio and TV accounted for some \$3,000 in advertising.

- 5 Large billboard signs in the company colors, located at the main traffic turn-offs to the display houses.
- 6 A letter of invitation was sent to industrial plant and personnel managers located within a 30minute drive of the three sub-



divisions. Short, but not too short, the letter opened with the striking sentence, "We believe your company would like to save money by reducing the cost of recruiting and training new employees." Its theme was the influence of home ownership on employee stability, and it presented the Helf tracts as ideally located for employees in the plants. The letter enclosed leaflets describing the houses and asked the managers to post these leaflets on bulletin boards. and to announce the Helf openings in company news bulletins. These letters of invitation were followed up with direct mail pieces, as an expression of Helf's recognition of the need for closer coordination between industrialists and home builders. Veterans' organizations were also contacted, since GI financing was being offered.

A feature card was given to each visitor, to be filled in and checked for reaction to the model home. This card worked three ways: it focused attention on the main features of the house, gave Helf a pool of names from which winners of the awards could be drawn at the close of the campaign, and, of course, provided a backlog of leads to prospects. Some 2,000 signed cards were obtained.

### FEATURE CARD FABULOUS 1500 ARADE OF HOMES by Marvin Helf, Builders YOU MAY WIN A FREE TRIP TO BERMUDA OR ONE OF 14 OTHER VALUABLE PRIZES -Fill Out Reverse Side And Deposit in Box You need not attend MAME ADDRESS CITY TELEPHONE NO.

#### Sales Policy

Each house offered in this campaign had a standard price. Every extra and variation was given a set price. As Helf explains it, the plan was "to gain a broader coverage of the market with a given house by advertising the basic house at a basic price and adding extra features as needed to satisfy more buyers—after the manner of the automobile industry."

Each of the three subdivisions had its own sales representative who held forth in a completed house next door to the model display house. Helf doesn't believe in trying to squeeze a sales office into one corner of a model home. Pertinent information of a sales and construction nature was displayed in the salesoffice house and thus did not interrupt and distract the flow of visitors through the model home.

Helf was one of the first builders in metropolitan Cleveland to use the Home Owner's Service Policy prepared by the National Association of Home Builders. Each Helf buyer was also given a booklet on care and maintenance of his home. Builder rates these as public relations tools of no small importance.

#### Results

Some 7.000-8.000 people visited the subdivisions during the camraign. In spite of a wet, cold opening week. 25 houses were sold that week. Total score for the four weeks was 48 houses, not counting sales made in the days after the campaign closed and which were undoubtedly stimulated by the campaign. Helf figures that advertising cost per house was \$166.67, "In our opinion this is a good record considering our tight market condition and the continuous cold. rainy weather. In addition, the promotion momentum is still resulting in sales."

#### ENTER AMERICAN BUILDER'S NATIONAL HOME MONTH CONTESTS

Two contests are open for the best promotions carried out during the month of September featuring the National Home Month (or Week) idea. One contest is for local chapters of the National Association of Home Builders, and one is for lumber dealers.

Write for an entry blank now, from National Home Month Contest Editor, American Builder, 79 W. Monroe St., Chicago 3, III.

# THAT HELPS YOU



# Let Insulux Glass Block® help you sell your homes faster by adding visible evidence of extra value

What prospective homeowner's eye wouldn't be caught with a "see through" wall as attractive as this one? You can build such a desired feature into your homes by including panels of Insulux Glass Block.

Insulux panels are as practical as they are beautiful. They have the insulating efficiency of an 8-inch brick wall ... won't frost or sweat in winter. Patterns are available in a wide variety—from the clear block shown above to those that restrict sight completely.

Give the homes you build the benefits

that Insulux Glass Blocks bring. Applications are practically limitless. Stairwell, kitchen, utility room and basement, to name just a few places—can use glass block panels to advantage. Start to plan now to use this versatile, practical building material to help you sell your homes, faster.

For information about these uses of Insulux or for help with a specific problem, just write Insulux Glass Block Division, Kimble Glass Company, Dept. AB8, Box 1035, Toledo 1, Ohio.

# Here's the "boss" of the house



Because she does much of her work at her kitchen counters, include counter lighting to brighten these working surfaces. Her wall of daylight won't rust nor rot nor lose brightness no matter how often washed or splashed. An occasional wipe renews the sporkle



Counter lighting with Insulux Glass Block adds glamour to normally dark places. Used in the laundry, a panel brings plenty of soft light right down on active working surfaces.



A "see-out" dining nook. A panel of Insulux super-clear Glass Block lets you see out but ends problems of condensation, and because of its high insulation value, stops icy drafts . . . keeps rooms more comfortable.



Literature for any Insulux Glass Block application is available free of charge just by writing to the address at the left.

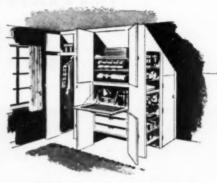


### KIMBLE GLASS COMPANY

Toledo 1, Ohio-Subsidiary of Owens-Illinois Glass Company



Flexible Storage Wall. (Plan 1) Simplicity of construction, adaptability mark this striking fir plywood built-in. Provides compact storage in small space. Box-like drawer, desk and cabinet units are interchangeable. Sections can be altered, added or subtracted to fit wall space. Cost of fir plywood to build unit shown.......\$105*



# WAYS to put extra with low-cost



HERE are eight new ideas you can use to build your salesstory right into the house. For even the most modest home can be lifted above the ordinary . . . given *extra* sales-appeal with low-cost fir plywood built-ins.

of the below to sent the

Fir plywood built-ins far more than pay for themselves. They sell houses faster—and at better prices. See how little you pay* for fir plywood for each of these built-ins.

And when you plan with plywood, you make the built-in fit the house—exactly! No bothersome juggling of "stock" units. Fir plywood is easy to cut, fit, fasten. Paint it with popular modern accent colors to compliment your interiors ... or use light stains to feature the real wood grain.

Get detailed plans for these eight sales-clinching built-ins from your local lumber dealer—or write Douglas Fir Plywood Assn., Tacoma 2, Wash. Please order by number.

# Fir Plywood



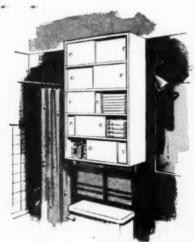
This trademark identifies quality-tested PlyPanet®—the versatile "one-side" grade of Interior fir plywood. Other grades include "two-side" panels for uses where both sides of panel will be seen. For outdoor use, specify Exterior-type fir plywood. EXT-DFPA® on panel edge means 100% waterproof glue.

SPECIFY DFPA-INSPECTED FIR PLYWOOD

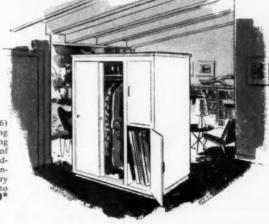




# sales-appeal in your homes fir plywood built-ins



Island Entry Wall (Plan 6) defines entry and living areas without confining either. Adds feeling of spaciousness. Saves building costs by replacing conventional wall and entry closet. Fir plywood to build it costs...\$100*





*Based on latest available Chicago retail sales for fir plywood compiled by leading trac; magazine, prices may vary throughout nation depending upon location and source of supply

# Want to sell your homes faster?



CARRARA GLASS, in bathrooms, powder rooms or kitchens, stamps any home a "quality" buy. When Carrara is combined with a Plate Glass mirror, as shown here, the appeal is bound to be immediate. Your selling job will be easier. Carrara Glass is easy to handle, comes in ten attractive colors to suit any decorative idea.

A MIRROR of flawlessly reflective Pittsburgh Plate Glass, over the mantel or on a wall, makes a small room look larger. Installing mirrors in the homes you build will give them an added touch of smartness and a luxury look, thus emphasizing the real value you offer prospective buyers. To simplify installation and reduce on-the-job costs, Pittsburgh Mirror Brackets are supplied with each custom-made mirror you order. Your local Pittsburgh branch or glass distributor has complete details on these cost-cutting brackets for structural wall mirror installations.

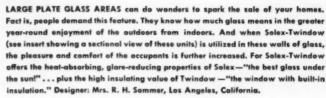


Every nickel you spend on glass shows.

And the results far outweigh the cost.

# Pittsburgh Glass can help you!





# Build it better with Pittsburgh Glass



See Sweet's Builders Catalog for detailed information on Pittsburgh Plate Glass Company products.

PAINTS . GLASS . CHEMICALS . BRUSHES . PLASTICS . FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED



Call them leaders and troughs, or downspouts and gutters...you'll find them real sales-leaders because they mean rustproof beauty that never needs painting. And they lead in speed of installation...adding extra labor-saving to the lowest cost of any rustproof material. Slip connectors-no soldering. Compared to rustable gutters soldered and painted, they give you a visibly superior sales feature at an actual saving! Ogee or Half-Round, stipple-embossed (shown) or smooth finish. Write for literature.

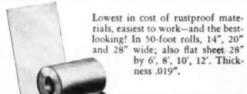
Reynolds Metals Company, Building Products Division, 2003 South Ninth Street, Louisville 1, Ky.



### REYNOLDS ALUMINUM RESIDENTIAL WINDOWS

Quality controlled from bauxite to building site. Flash-welded corners. Unequalled "satinized" finish. Shipped coated with lime-resistant lacquer, and protectively packaged. Casement, Awning and Double-Hung Windows ... write for complete 20-page catalog.

### REYNOLDS Lifetime ALUMINUM FLASHING





High efficiency at less cost than most bulk insulations. Perfect vapor barrier. Embossed foil on two sides of tough kraft paper (Type B) and one side (Type C).

In rolls of 250 sq. ft., 25", 33" and 26" wide.

## Why toss money away?



Quality redwood are offset by economies affected by the most modern equipment and production line handling methods in the industry. When you buy, specify Palco Certified Dry Redwood, and get the most for your money.

- **Greatest Durability**



### THE PACIFIC LUMBER COMPANY

The best in Redwood-Since 1860-Mills at Scotia, California

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### 3 sash operations from just one window!



1. HOPPER-VENT—Sash swing inward with Flexivent in this position. Screen on outside means easiest operation. Note ample ventilation, yet no interference with drapes. Good protection during rains. Use hopper position for very low or very high ventilating windows.

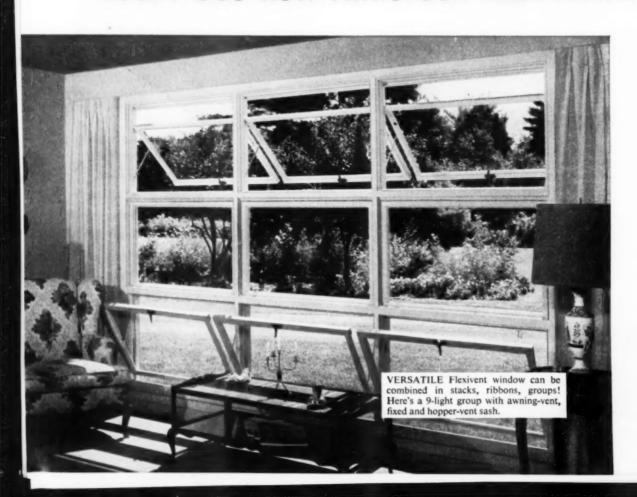


2. AWNING-VENT—Highly popular new sash operation is highly practical, too. Excellent ventilation and protection during rain. Inside screen hinged for easy sash operation. Friction hardware allows sash to open nearly 90 degrees. Flexivent is an unusually weathertight awning window.



3. CASEMENT—Install Flexivent on end and you have an economical casement. Outswinging sash only. Choice of 3 sash operations or fixed sash is entirely up to you. So is the combination of Flexivents into ribbons, stacks or groups for a wide range of window effects.

# Look! Use new Andersen FLEXIVENTS



### Here are 6 quality design features... 3 reasons for FLEXIVENT's economy

Here's why Flexivent is a superior ventilating window:

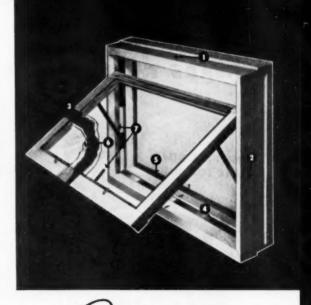
- Wood parts of clear pine are accurately milled by Andersen. Toxic treated with preservative and water repellent solution.
- Frame engineered for easy installation in three different positions. Gives three different sash operations.
- Quality glass bedded in elastic glazing compound. Clamped in new groove glazing for improved appearance and weathertightness.
- Sash contact with weatherstrip and frame on four sides gives remarkable weathertightness.
- 5. Choice of wood or aluminum screen.
- 6. Double glazing panel in aluminum frame always fits on outside.

Here's why Flexivent is an economy window:

- Simple hardware, including sliding hinge-adjusters, gives excellent operation at low cost.
- Complete unit easy to assemble into groups, economical to install and trim out.
- Note clean design and engineering which simplify manufacture and assembly. No stops, no complicated hardware. It all means savings which are passed on to the Flexivent customer!

Andersen Cosporation . BAYPORT. MINNESOTA

For specification data see your lumber and millwork dealer, Sweet's Light Construction Files or write Andersen Corporation.





# hundreds of ways—at low cost, too!



### POOR HEATING HEADS THE LIST OF HOME OWNER COMPLAINTS

"MY FUEL BILLS ARE TOO HIGH" "FLOORS ARE COLD AND DRAFTY"

CAN'T KEEP THE BATHROOM WARM"

> "OUR HOUSE IS TOO HOT OR TOO COLD"



What are you doing about it

### Don't let poor heating hurt your business!

The builder who blames the heating contractor for comfort complaints and thinks he has "passedthe-buck" . . . is only kidding bimself. It's bis reputation that suffers. For in the home buyers' eves, the builder is to blame because he is responsible for the completed home.

Despite high labor and material costs, good heating equipment remains the biggest dollar value. There isn't any justified reason for cutting heating costs to a point that comfort is sacrificed. Work with a Janitrol dealer to set a fair figure for your heating allowance, (usually an average of 31/2 to 4% of the total house price.)

Be sure you're getting advanced design in both equipment and the installation layout. Insist on equipment with a proved record of dependability and operating economy.

Put the extra sales attraction of a nationally famous name with its tremendous public acceptance to work for you.

You accomplish all this with Janitrol . . . the least expensive way of solving heating complaints before they start.



With over a million Janitrol steel heat exchanger tubes sold since 1940, less than 1/4 of 1 % have been replaced for any

SURFACE COMBUSTION CORPORATION...TOLEDO, OHIO

#### HERE'S WHAT TO DO ABOUT IT!

Local Janitrol dealers out from them why the are listed under "Furnaces", yellow pages of your phone book. Find

expensive.

out from them why the finest quality of heating equipment is not more Automatic Heating 



#### DISCHARGE IS FAST OR SLOW,

depending on how you want it. Hydraulic controls make this possible. Mid-section pivot of loader arms give longer reach in dumping position.

#### STRIPPING TOP SOIL

is another job this versatile unit does well. The simple rugged design of the Ware loader correctly distributes weight on tractor frame, regardless of the operation being performed. Down-pressure can be applied when it is necessary in tough digging. Hydraulic rams absorb shock loads...mean longer life and lower maintenance for both tractor and loader.

#### HYDRAULICALLY CONTROLLED BUCKET

assures greater "breaking-out" actionfull bucket loads every time. 28° roll back helps prevent wasteful spillage.

# Picture Your Profits ...

with this

### **OLIVER Hydraulic Tractor-Loader**

An Oliver Industrial Wheel Tractor with this all-hydraulic frontend loader is a combination that's hard to beat for low-cost, profitable operation. With any Oliver Wheel Tractor, you get famous Oliver dependable plus power, easy maneuverability, rugged construction. With the loader, manufactured exclusively for Oliver Wheel Tractors by Ware Machine Works, you get completely hydraulic operation which means easier, surer control for more efficient digging and loading.

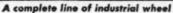
Take a look at the "profit pictures" shown here. They'll convince you that it's well worthwhile to ask your Oliver Industrial Distributor to arrange a demonstration of an Oliver tractor-loader combination for you.

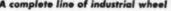
### THE OLIVER CORPORATION

400 West Madison Street, Chicago 6, Illinois











# Here's the name that will help you meet competition!

# **Johns-Manville**

Millions <u>read</u> and <u>hear</u> about Johns-Manville quality building materials every day!

National Magazines...

Week after week, month after month, all through the year, your customers see Johns-Manville Building Materials advertised in all of these influential magazines with a combined circulation of over 17 million!



JOHNS MANVILLE 22

On the nation's largest network, 5 nights each week, your customers hear about Johns-Manville products on Bill Henry's News Program. Broadcast over 450 stations covering the entire country, this popular program

reaches an audience of about 14 million every week in the year.

Ask your J-M representative to show you our complete line of promotional materials to help you capitalize on the consumer acceptance of the J-M name. Johns-Manville, 22 E. 40th St., New York 16, N. Y.

**Johns-Manville** 



### A baby's touch tells why home air conditioning costs less with Ponderosa Pine windows

Yes, even a baby can tell the difference between wood windows and other types! For wood windows are warm and friendly to the touch—do not readily transmit heat or cold. And that's mighty important in keeping the home owner's air conditioning costs down!

Superior weather-tightness is a major advantage of modern Ponderosa Pine window units. Precision manufacture and pre-fitting reduce wind infiltration and heat leakage to a minimum. Wood windows, too, can be effectively weather-stripped. The result: more cooling and heating dollars saved.

Water-repellent preservative treatment at the factory assures lifetime service with Ponderosa Pine windows. And because smooth grain Ponderosa Pine provides such an excellent bond for paint, there is less flaking or peeling and, of course, no rust or corrosion.

Ponderosa Pine WOODWORK

You'll Want This Window idea Book—full of new and interesting ways to use the many beautiful types of Ponderosa Pine windows. Mail the coupon for your copy of "The New Outlook." It's free.



Ponderosa Pine Woodwork Dept. WAB-8, 38 South Dearborn Street Chicago 3, Illinois

Please send me a free copy of "The New Outlook."

Business or Profession.

Address.....Zone...State.....



Reverse split-level design has a 26-foot through-the-house living room placed over the garage, four steps higher than other rooms.

Heated air is exhausted from cooling tower through grille on lower side wall, partially obscured by shrubbery

# low partition effective in reverse split-level plan



Attractive rear elevation could pass for front of house except for railed back porch

SPLIT-LEVEL in reverse might best describe this new Holiday House design of Contemporary Homes, Inc., at Hillsdale, New Jersey. A raised living room extends 26 feet through the house. All other rooms are on another level, two feet lower. There are no full partitions along the junction of these levels; open planning was permitted by use of the truss roof.

The model of this three-bedroom, two-bath home was opened late in May. It contains nearly 1,500 square feet of floor area, plus an oversized garage with an adjoining 4x13-foot storage area, basement and storage attic. It occupies a

#### BUILDER:

Contemporary Homes, Inc., (Lawrence and Rodger Lowe), Ridgewood, N.I.

#### ARCHITECT:

Lester Cohen. Newark, N.J.

#### DESIGNER:

Lawrence Lowe

Fluted glass panels flank center-knob entrance door. Plain rolled steel bars, shaped into handrails, guard steps which rise 2 feet to living room floor level



# DINING RM 12-0'x 10-2' LIVING ROOM 13-10'x 26-2' LIVING ROOM 15-10'x 26-2' BED ROOM 12-0'x 10-0' CI LIVING ROOM 15-2' x 12-2' BATH PORCH FLOOR PLAN

#### BRAND NAME PRODUCTS USED

A.B.C. aluminum windows
American-Standard fixtures
Armstrong linoleum
Bestwood striated wood cedar shingles
Fiberglas insulation
Flintkote asphalt shingles
Formica counter tops and vanities
G.E. oir conditioning
Gould water pump
Lightolier electric fixtures
Marley cooling tower
Schlage hardware
Thor kitchen and laundry appliances
USG plaster and Rocklath
U.S. Plywood

100x150-foot plot and is designed for year-round air conditioning.

During the first ten days, Lawrence Lowe, head of the building organization, reported six sales of the home at the basic \$24,900 price. He decided this model would be at least as popular as his \$22,900 conventional split-level house and planned to build 34 homes of this new type, or an expansion thereof. in his 80-unit project. Several buyers, he discovered, wanted the larger \$29,500 version, with one end extended 71/2 feet to create a 22x26 living room and a two-car garage underneath, and the other end extended four feet to enlarge bedrooms.



View across living room from steps shows long, low lines of stone veneer and flagstone fireplace. Note how builder uses extra cuttings of carpeting instead of the traditional building paper for his prospects to walk on



Veneered wall of Tennessee marble 30 inches high extends 17 feet along open side of living room. On dining room side, this wall is 54 inches high, faced with brick veneer. Ceiling area of living room, dining room and foyer is unbroken by partitions and is 10 feet above the lower level

#### Cooling Tower in Basic Price

In addition to many other features, basic prices include installation of a cooling tower for the air conditioning system, perhaps the first time this has been offered as standard equipment in a large-sized eastern development. Only the four \$18,500 ranch houses in the project will not have this device.

Despite its size, the house is said to be adequately served by a two-ton General Electric air conditioning unit using Air-Wall ducts To help make this possible, the design called for a light-color, low-pitch roof with 42-inch overhangs and the use of a greater proportion of fixed windows. No windows open in living or dining rooms, yet plenty of light and viewing area are afforded by 5x7-foot double-thick

plate glass panes at each end of the living room and a wide bow window in the dining room.

While the split in the floor level occurs along the inside living room wall—a low partition—the living room height is continued across the adjoining hall and dining room, giving the latter a 10-foot ceiling. This low-wall separation is made up of a 30-inch-high Tennessee marble veneer on the living room side from entrance steps to the rear wall and a 54-inch-high brick veneer on the other side.

The low wall and different floor levels combine to shut off one room from another to anyone seated, while the unbroken ceiling creates an impression of even greater size than the actual generous proportions. When standing, one can survey the entire area.

#### Much Marble Block Used

The marble block used in the low partition is duplicated on the opposite living room wall to provide a 15-foot stone facing for the fire-place. Entrance to this room is gained by four steps set at a slight angle and leading from the foyer just inside the front door. Rolled steel bars are shaped into railings here, at the entrance to the stairs leading to the basement and garage, and on the front porch.

Builder Lowe points out that the Holiday House was chosen by the Thor Corporation as the first to receive its new appliance line. One of the units is a waist-high electric oven with gold-finish door matching the knotty pine cabinetwork. Still another "extra" included as standard is a dinette booth, built in at the end of the kitchen.

Center hall entry of the house has a direct connection with every room, as well as with the basement and garage. The plan is, according to Lowe, a composite of ideas received from the public during the past year.

"We tried," he said, "to give it modern design in a contemporary sort of way"—somewhere between the drastically modern and oldfashioned schools.



Among equipment included in price of house are built-in breakfast seats, table

### plan for quiet, vibrationless cooling tower

The cooling tower installation in Contemporary Homes was designed for quiet and vibrationless operation, according to Lawrence H. Hirschbach, of Controlaire, Inc., the air conditioning contractor.

Quiet was assured, he pointed out, by installing the tower in the outside corner of a 4x13-foot storage closet behind the garage. The area is shut off from the garage itself by a concrete block wall with a center door opening. With door shut, no noise can be heard upstairs and only a low hum in the garage.

To eliminate vibration in pipes carrying water between air conditioner and tower, caused by a small electric pump, Hirschbach borrowed a trick from the automobile manufacturers. He cut a small section out of each pipe just above the pump and reconnected the open ends with a piece of rubber hose in the same manner that an auto engine is connected to the radiator system. Life of the hose should be long, he reasoned, because the water is rarely hotter than 95 degreees.

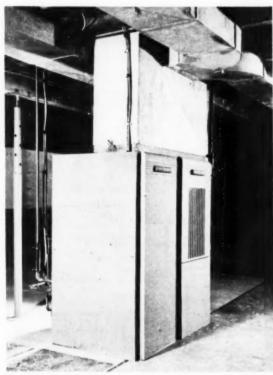
### How Does the Tower Work?

When this cooling tower, a mechanical draft type, is operating, 90 to 95 per cent of the water is cooled for reuse. Heated water from the condenser of the air conditioner enters it at the top. Water gradually filters down through a maze of staggered redwood slats. At the same time, a fan in the tower pulls air through a grille in the adjoining inside wall next to the garage, drawing this air horizontally through the tower across the slats,

The air movement picks up heat from the water, causing some to evaporate. Heated air is expelled through the foundation wall by a grille hidden behind shrubbery. Meanwhile, cooled water reaches the bottom of the tower to be piped back to the conditioner for reuse. Level of the cooled water is kept constant by a float which opens a valve admitting city water to replace that lost by evaporation.

Tower walls are hot-dipped galvanized steel and, wherever they come in contact with water, are also treated with a mastic coat for added rust protection.

Complete cost of the tower installation runs around \$400, according to Hirschbach, depending on individual conditions. He said it should be cleaned and serviced annually, pointing out that while the tower should last 10 years, parts need replacement from time to time. Cost of a new tower, he added, will not approach the original because all connections will be in place.



Small floor-mounted pump, out of sight in back of the air conditioner, moves water to and from the cooling tower. Supply and return pipes are cut just above pump and rejoined with hose connections to eliminate all vibration. Lally column is the adjustable steel post-type



Cooling tower is installed in corner of 4x9-foot storage closet at rear of garage. Warmed water from air conditioner enters at top: cooled water returns from bottom. Center pipe admits city water through valve operated by float to keep constant level. Duct in rear exhausts heated air through outside grille



Night view emphasizes changes. Double-channelled neon signs and spots recessed in wide overhang concentrate light on entire exterior of store, keep it away from apartments above. Front, flagstone terrace being prepared for landscaping, is carried through walls into reception room floor

# store remodeling helps reshape realty office as self-service home center

E XTENSIVE redesign of a 25year-old, two-story brick store and apartment building to produce a contemporary one-stop shop for the home buyer has just been carried out in Schenectady, N. Y.

Capitol Homes, Inc., the owner,

had originally occupied a corner store for its real estate office, then annexed a second store and, finally, a third. Virtual complete rebuilding of the space was ordered but the need for "business as usual during alterations" complicated the procedure. Work began in the front of the building and progressed step by step toward the rear, causing constant shifts of employees and their telephones.

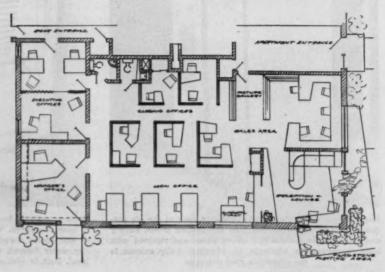
Heavy girders were moved in to support the upper floor as most all

LOCATION: Schenectady, N. Y.

OWNER-ARCHITECTURAL ENGINEER: Albert L. Friedman

DESIGNER: William R. Lund

New plan utilizes open construction by eliminating most center partitions. Space gained is given over to large salesroom, a unique picture gallery and five offices







Exterior, before (left) and after face-lifting. Realty office formerly shared entrance with tailor shop.

After absorbing space of other store, it has a larger reception room and the view through its large double-glazed windows is unobscured by cumbersome sign. Second floor window bays are de-emphasized with neutral shade of paint and by new sign over wide overhang

interior partitions were removed permanently. Metal ceilings, hanging electric fixtures, linoleum floors, steam radiators, floor fans and ordinary plate glass windows were replaced by acoustical ceiling tiles laid in mastic on plywood, fluorescent strip lighting, rubber tile floors except for carpeting in private offices, low sidewall grilles for year-round air conditioning and large insulated glass windows.

In the reception room-lounge, nearly doubled in size, the low railing separating it from the main office was replaced by a walnut finished cabinet wall and a wide counter top of plastic laminated on wood, set off by two panels of fluted glass. Near the windows, part of the flagstone terrace continued inside.

Space formerly shared by as many as 20 salesmen and the office staff was rearranged for the latter alone, while most of the new store area just acquired was transformed into a salesmen's workroom. Bathrooms were tiled and lavatories centered in vanity tops.

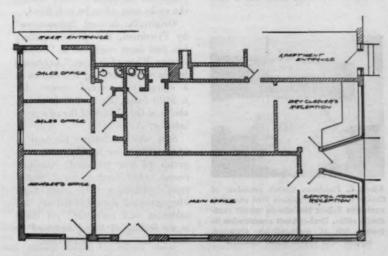
A wide folding door was installed in place of the former solid partition between two rear sales offices, which made a large room available for conferences.

Size was about the only thing unchanged in the manager's office. Base cabinets line the length of one long wall. Near their center is a desk, built as a T-shaped, irregular extension eight feet long. Overhead are three high wall cabinets, each 40 inches wide. Underneath the cabinets is a long fluorescent light tube to floodlight the desk without glare.

A face-lifting operation on the exterior was highlighted by a wide, aluminum-trimmed overhang with long neon signs above, and by application of a special mica and asbestos paint to impart a long-lasting white finish to the old brickwork.

### BRAND NAME PRODUCTS USED

Bell & Gossett water circulating pump General Electric air conditioning Johns-Manville soundproof ceiling panels Kentile rubber tile Madernfeld doer Pittsburgh points and window glass

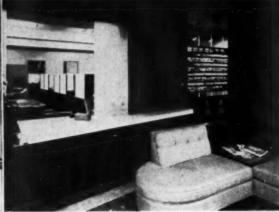




Detailed close-up of overhang

Floor plan before remodeling shows that only major partitions left unchanged were those forming the manager's office.





Pictures taken at same spot show complete change effected by remodeling. Frail railing in old office (left) gives way to deep counter with fluted glass and walnut panels: thumbtacked pictures on walls are replaced by the "photorama." an idea of the owner: salesmen get bank-type enclosures for added privacy: floor fan disappears as air conditioning makes bow

SELF-SERVICE HOME CENTER

### picture displays developed as house salesmen

What type of modern store can best serve today's progressive real estate organization?

Albert L. Friedman, president of Capitol Homes, Inc., put that problem up to several architects when confronted with the necessity of combining three stores into one enlarged office. He wanted to get away from the typical modern store and create something that would emphasize the only thing a real estate business actually has to sell: service. He finally decided on a store front design presenting an old standby—pictures of new and old homes on the market—in a novel way.

### Color View Shadow Box

Wide insulated glass windows were installed on both exteriors of the large corner reception room. Then a  $4\frac{1}{2}$ x6 $\frac{1}{2}$ -foot large walnut frame was centered on the side inside wall to give a shadow box effect. Full color slides of 16 homes are projected within this frame automatically at the rate of one every nine seconds. The projector completes its cycle every  $2\frac{1}{2}$  minutes and any slide can be removed and replaced quickly.

This idea takes full advantage of the fact that the building is situated on a main highway at a traffic light corner. Motorists entering the city see clear color pictures through an 8x8-foot show window. The effect after dark is said to be even more striking. Late at night all lights are turned off but one ceiling spot which is focused on one specially featured picture.

### **Orderly Photo Display**

Another merchandising development was the installation of three custom-built racks for neat photographic display of all houses, new and old, currently available in the Schenectady area. At the rear of the salesroom, the racks are seven to eight feet long. Each has a base with shelves for sales literature, while above that are five long rectangular boxes "strung" on 1½-inch dowels extending from base to ceiling. Dowels are notched at regular intervals so that wooden pegs can be inserted to adjust boxes to desired levels.

The walnut-finished boxes are slotted on either side, with each row holding 12 to 14 5x7-inch photos of homes. Similar slots are placed at an angle atop the base. Over 400 pictures may be shown at a time. Since city realty firms operate under the multiple listing principle and plans are to display every listing, the racks may often be well filled.

Originally dubbed "photorama" by Friedman, this picture gallery has just been renamed as "Capitol Homes View of Values," suggested by the winner among 900 entries in a company-sponsored contest for a \$100 bond. Part of it is shown above in the picture of the new store

Still another feature planned to appeal to prospective buyers is the group of five so-called "closing" rooms, each having open "banktype" partitions with glass tops. They provide desirable privacy for salesman and customer; yet there is no feeling of being hemmed in due to the open construction.



Albert L. Friedman (right), president of Capitol Homes, Inc., confers with company executive Robert McCabe in rebuilt manager's office. Desk-cabinet combination is custom job et walnut-finish plywood, topped with plastic-wood laminate

An architectural engineer who holds a B.S. in real estate, Friedman has built several hundred homes in the Schenectady area since the war. Now he concentrates on the "one-stop" realty business, maintaining a close working arrangement with several local builders, a loan application service for a group of banks and a varied insurance department.

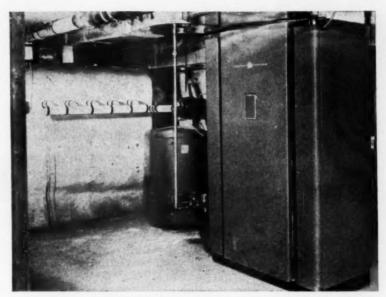
"We firmly believe," he said, "that the service idea will predominate in the real estate office of tomorrow, and we are now prepared to take advantage of that trend. There cannot be self-service in the meaning of the food store of today, but we will have to get as near to that as our field of endeavor will allow.

"Our concept is to bring the client into an office that is modern and comfortable. In such surroundings, the salesman and his client are at ease. The client cannot pick up a house under his arm like you pick up cereal in the super-market, but here he can state his circumstances and price range and then he has plenty of time to go over the photographs of our property in that price range.

"Thus, eveyone is saved a lot of useless running around looking at houses that the client wouldn't like or couldn't buy. By merchandising the houses while he is here, he has a pretty good idea of what several pieces of property look like. When he gets to the site, it is merely affirming what he has already seen."



Expansive windows in reception room are set just high enough above floor to install diffuser grilles for supply ducts



Old boiler, which continues to steam heat the apartments, is connected with new equipment to supply air conditioned heat to the office

### SELF-SERVICE HOME CENTER

### split system for heating-cooling

Through an ingenious "split-system" arrangement, the old oil-fired steam boiler now supplies air conditioned heat to the store while continuing to furnish steam heat to the two other stores and seven apartments in the building.

According to the Kalteux Bros. Co., Inc., of Schenectady, designer and installer of the system, it consists of a General Electric five-ton air conditioner incorporating both a hot water heating coil and a direct expansion freon cooling coil. A self-contained freon five horse-power condensing unit provides the necessary refrigeration for the cooling coil. Hot water for the heating coil is obtained by carrying the boiler water from the steam heat system through the heating coil by means of a water circulating pump.

A clock thermostat in one of the apartments operates the steam boiler independently of the rest of the system. However, an aquastat maintains boiler water at 180 degrees Fahrenheit to assure adequate hot water for the air conditioner as well as to reduce the pick-up time when the apartment section receives a call for heat.

Controls for the air conditioner comprise a three-position switch

marked "off," "ventilate" and "cool;" a clock thermostat for heating and a plain one for cooling.

When the switch is turned off, the heating thermostat turns on the water circulating pump and the fan in the air conditioner on a call for heat. If desirable to increase ventilation due to heavy smoking, the switch is turned to "ventilate." In this position, the air conditioner fan runs continuously and the heating thermostat turns on the water circulator if heat is required.

In the spring, summer and fall, when both heating and cooling may be needed, the switch is at "cool" position. The heating thermostat operates as before and, in addition, the cooling thermostat controls the refrigerating equipment to maintain the temperature desired.

With this arrangement, dehumidification can be provided on a muggy day without lowering temperature of occupied space below the comfort point.

A rectangular duct system with 4-inch round takeoffs connects the air conditioner to "Air-Wall" grilles located just above the baseboard in walls around periphery of office. Return air is taken from baseboard grilles on inside partitions.



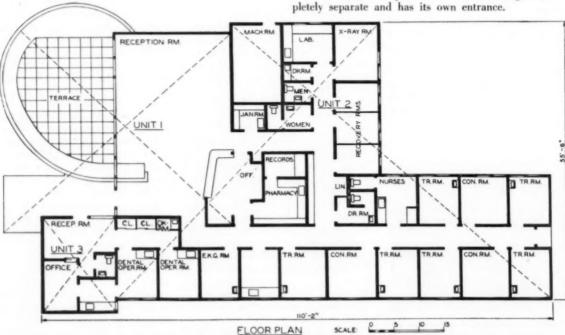
Detail view of exterior showing patio wall adjoining entrance

## here's a clinic for suburban medics

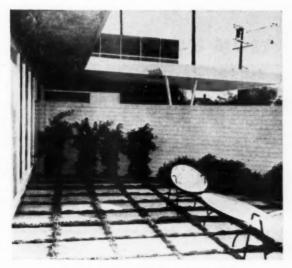
NER Roos-Loss Medical Group. Pomona, Calif.

ARCHITECT: Richard Spencer,
Santa Monica, Calif.
BUILDER Phillip I. Rowell.

Phillip J. Rowell. Santa Monica, Calif. This medical group in Pomona, California, is designed for occupancy by four doctors and one dentist. Each has space for consultation, treatment and office. The dental suite, while a part of the main building, is completely separate and has its own entrance.



Floor plan: large reception room and patio serve all offices except dentist



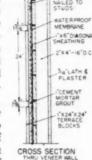
Interior of patio adjoining reception room

The building is one story on a concrete slab with curtain foundation walls. The structure consists of three distinct units in one building. Unit one is the functional portion which is a one-story L-shaped wing of a simple standard design with a continuous battery of sliding sash. Sills of windows are approximately four feet above floor line. This permits freedom in the placement of furniture in the various laboratories and consultation rooms. Exterior walls are covered with stucco.

Unit two is the design feature located at the corner of the building with precast concrete block walls extending vertically above the roof line of unit one, and with the surface of the walls unbroken by windows or doors. These walls, while giving the impression of solid masonry, are in reality of frame construction covered with a one-inch veneer. Wall consists of 2x4 studs 16

inches o. c., covered with 1x6 diagonal sheathing upon which is applied Sisalkraft. One-inch space is then allowed for application of wire mesh and cement grout. Size of precast blocks is 24x24x1 inch with 1¾-inch vertical and horizontal joints raked out ¾ inches. All blocks are laid up in a stacked pattern.

Unit three is the entry way. Large waiting room and adjoining patio are approached through a series of large sliding doors which are a part of the continuous glass wall of



waiting room. Patio is enclosed with a seven-foot-high semicircular masonry wall built up of 4x16-inch concrete blocks. Floor of patio is laid with precast concrete blocks with grass planter between the units. Planting is provided along both sides of concrete block walls. The combination of curved patio wall, entry way with extended canopy, and the large block vertical walls of the second unit produces the design emphasis of the building, off-setting the simplicity of unit one.

250,000 homes are safer because of a

Van Packer

The finest homes deserve the maximum safety of Van-Packer's thick wall of insulating vermiculite concrete, tile liner, asbestos jacket and acid-proof cement - plus its tightly sealed sectional construction. Under-writers' listed for all fuels. F. H. A. accepted. Easily installed by one man in 3 hours or less. Light weight. Needs no foundation. No joist or rafter cutting. Shipped complete. Nothing extra to buy. No delays! Immediate delivery. Cuts chimney costs up to 50%. VAN-PACKER CORPORATION DEPT. 5 . 209 S. Las CHICAGO 4, ILLINOIS Please send me your latest, complete circular on Van-Packer Packaged Masonry Chimney. Address State

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> Listed and approved by Underwriters' Laboratories, Inc. as a Type B-W gas vent for installation with recessed wall heaters.

> The American Gas Association now requires that recessed wall heaters be marked specifying the type of vent to be used. In addition, Underwriters' Laboratories has established a new designation, Type B-W, applying to vents specifically approved for use with recessed wall heaters. Compliance with these requirements will insure better, safer venting and help to eliminate customer complaints resulting from faulty installations.

Write for new folder showing approved method of installing wall heater vents for both new and existing construction. No cost or obligation.

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- · No Furring Out Required
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Metalbestos Wall-Vent, the first and leading gas vent specially designed for venting wall heaters, meets all A.G.A. and U.L. requirements. Its insulated double-wall design assures proper venting and protects walls from dangerous overheating. Made of rust-proof aluminum, it resists the carrosive action of vent gases, lasts the lifetime of the house Itself.



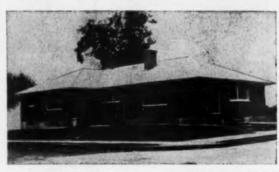
Send for free copy of VENT INSTALLATION HANDBOOK

Based on the latest gas venting research, this pocket-size booklet contains complete, up-to-date information on venting practices plus many helpful installation tips. Write today to Dept. J



METALBESTOS DIVISION

LIAM WALLACE COMPANY . BELMONT. CALL



Two living units under one roof, each with separate entrance

### a home with an income

There are those who want a place of their own, yet are anxious to be relieved of the full financial burden such a home entails. For these people the duplex arrangement shown provides a "home with an income."

The Edwin Sandberg Co., Portland, Oregon, built and displayed this home with marked success during NHW, selling this one for \$26,000 including a two car garage, all of which is placed on a 50x100-foot corner lot.

Each duplex (all on one floor) has two bedrooms on each side with living-dining room, kitchen and bath of generous size and ample closet space. A wood-burning fireplace is located in each living room.

Each duplex is self sustaining with a complete basement under each unit. Separate furnaces, hot water heaters, laundry equipment, ranges and refrigerators are provided for each living unit.

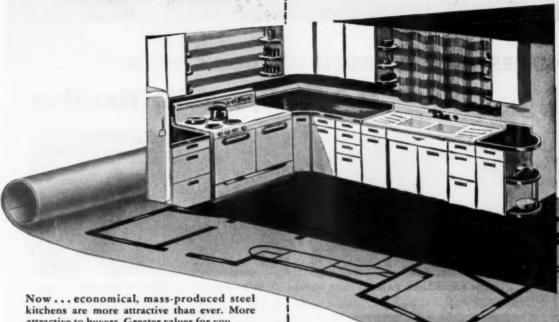


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Mail the coupon for more information about these quality kitchens that are competitively priced. Learn all their extra value features. Berger Manufacturing Division, Republic Steel Corporation, 1022 Belden Ave., Canton 5, Ohio.

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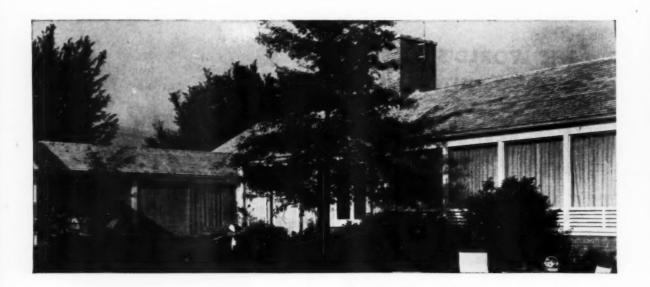
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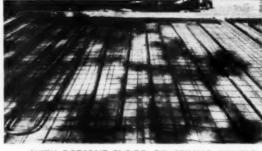
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# HOMES WITH MODERN WINDOWS NEED **B&G** Hydro-Flo Heating



... WITH BASEBOARD PANELS



... WITH RADIANT FLOOR OR CEILING PANELS



B & G Hydro-Flo Forced Hot Water Heating correctly solves the problem of heating homes with large glass areas. When used with modern baseboard or radiant panels, a curtain of warmth is raised against incoming cold—protecting against icy down-drafts from the windows—keeping floors comfortably warm. Every inch of the home lequipped with B & G Hydro-Flo Heating is livable space!

B & G Hydro-Flo Heating furnishes not only a better quality of heat, but better controlled heat as well... so smoothly modulated that every change in the weather is met with a corresponding change in the heat supply. No overheating fuel waste—no underheating chills!

Add to this a year 'round supply of indirectly-heated domestic hot water—ample for automatic washers, baths and showers—and you have the reason for today's trend to B & G Hydro-Flo Heating.

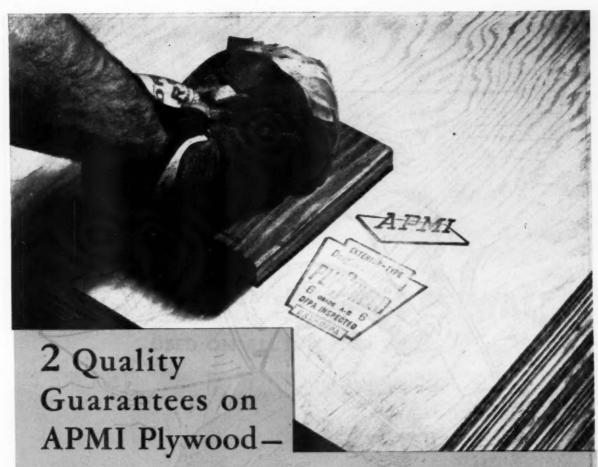
Send for descriptive literature.



### **BELL & GOSSETT**

COMPANY

Dept. DB-11, Morton Grove, Illinois
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Every plywood panel that leaves APMI mills carries a double stamp of quality—the grademark of DFPA and the trademark of ASSOCIATED.

APMI plywood originates from the fine Douglas fir that grows in Oregon's rich rain forests. This plywood is manufactured in modern, efficient mills by skilled people who take pride in their jobs. And it has back of it a company with the experience and reputation of more than 30 years in the industry.

APMI plywood is available in major building and distribution areas and is sold by veteran plywood men. Your inquiries are invited.

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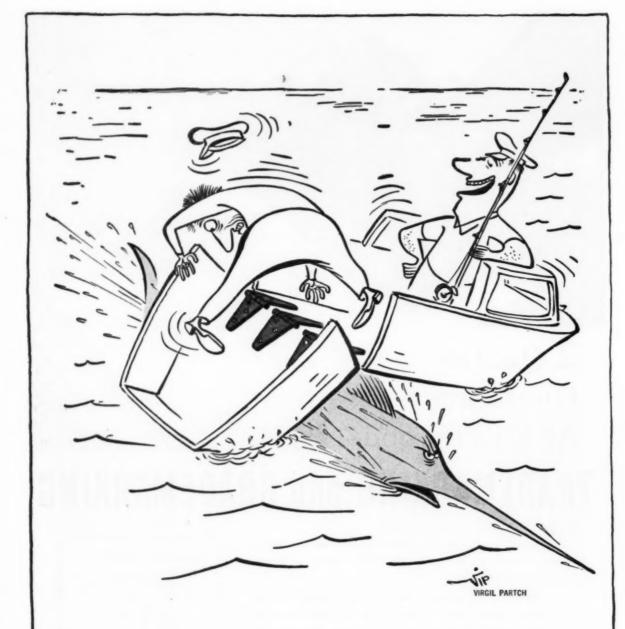
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GENERAL OFFICES: EUGENE, OREGON

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New Library, Albany, Calif.
Architects: Young & Lloyd
General Contractor:
C. Overaa &-Co.

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IN THE NEW
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## Certain-teed FIRESTOP BESTWALL

### **USED ON ALL INTERIOR WALLS**



Here's a case where Firestop looked so good to the architects that the specifications were *rewritten* to include it.

Original plans for the new Albany library called for ½" gypsum board on all interior walls. Code requirements for 1-hour fire protection made two layers necessary on most surfaces.

"After consideration of labor costs and simplicity of detail, as well as conformance to Code," writes Mr. Young, architect, "we issued, prior to receiving bids, an addendum calling for all walls to be covered with \( \frac{5}{6} \)" thick 'Firestop' gypsum board. We were pleased with the results, both in cost and appearance."

Firestop Bestwall does everything ordinary gypsum wallboard can do—and does it better! It has greater structural strength. It has better resistance to sound transmission. And it's up to three times (or better) as fire resistant. Firestop Bestwall is the first wallboard to give 1-hour fire resistance in single layer application—on both walls and ceilings—over both wood and steel framing.

It is manufactured under Underwriters Laboratories Service and approved by Building Codes in more than 200 cities. Firestop can be used for any commercial, residential or institutional type building. It's as good for remodeling as for new construction.

Firestop Bestwall is the greatest development in dry wall construction since the introduction of gypsum wallboard. Your clients need and will welcome its important safety features. Specify it.

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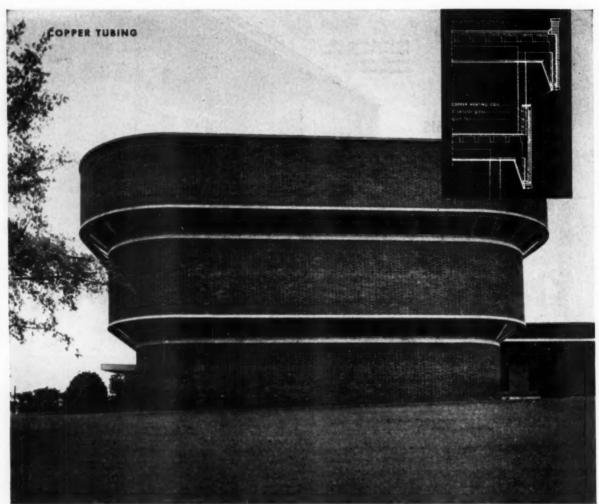
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Quality made Certain . . . Satisfaction Guaranteed



NEW HOME OFFICE of Springs Cotton Mills. Architect: Robert & Company Associates, Atlanta, Ga. Contractor: George A. Fuller Co.

## Copper Tubing . . . in walls that "hang in air"

The ability of architectural designers to solve unusual construction problems is proved again in this new home office building of the Springs Cotton Mills



COPPER TUBING was specified for radiant heating panels that are installed in walls.

located in Ft. Mill, S. C. The angled windows desired by the owner require that the walls be supported by cantilever construction, thus creating the illusion of being suspended in mid-air.

These walls contain the radiant panels that provide winter comfort for office workers. From both a cost and design basis, copper tubing fits this type of heating system perfectly. It is easily installed because it comes in long lengths, requires fewer fittings and bends easily to follow wall curvatures. Connections, where necessary, are made quickly and securely even in the hard-to-get-at spots by using solder-type fittings.

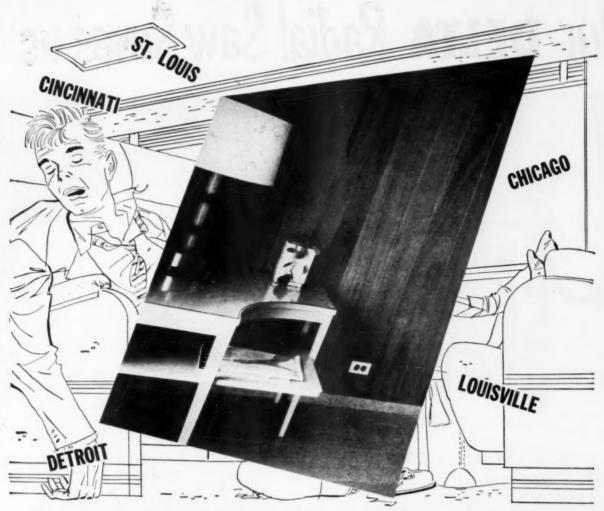
Contractors will always find that

copper tube for radiant heating panels offers their customers not only the "final touch" to modern design . . . but also that copper means lower installation costs, longer service life and lower upkeep. For suggestions for installing copper tubes in radiant panel systems, write for Publication C-4 to: The American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ont.

for copper tubes see your

ANACONDA°

distributor



# The trade shows prove it... builders and buyers alike want Roddiscraft Panawall

Booths packed with people from opening to closing . . . the aching feet of weary Roddiscraft salesmen . . . these tell of the success of Panawall exhibits. Builders, home owners — clamored for facts about Roddiscraft decorative paneling . . . wanted to know when, where and how they could get it. These buyers learned how Panawall creates interiors of lasting beauty . . . quickly, easily, at low cost. Builders can give more house for the money. Ideal for home modernization. They all want Panawall.

### Panawall: The material that stays beautiful!

Roddiscraft Panawall is genuine hardwood plywood, made of random-width veneers V-grooved at the joints. Looks like costly solid wood — costs only a fraction as much. 4' x 8' x 1/4" panels simplify new construction, or can be installed over existing walls. Available in Walnut, African Mahogany, American Cherry.

### Get the facts on Roddiscraft Panawall now!

Ask your nearest Roddiscraft dealer for complete information on Panawall and other Roddiscraft decorative wood walls: Craftwall, Parquetwall, Cedrela and Plyweave. Or send the coupon below for data and prices.

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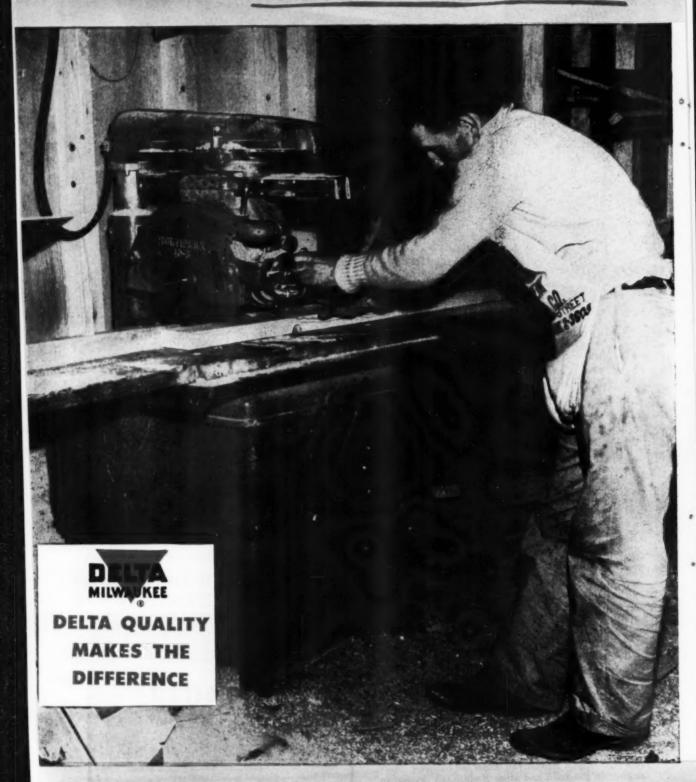
RODDISCRAFT — RODDIS PYLWOOD CORP.
Marshfield, Wisconsin

Yes, I am interested in permanently beautiful wood walls. Send full details on Roddiscraft decorative paneling.

STATE

NAME ADDRESS CITY

# Our DELTA Radial Saw Saves us

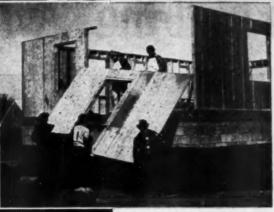


"Our Delta radial saw cuts practically anything," says Herman Horstman, Jr., "and saves 25% over partable power tools." Exclusive 360° turret action makes cutting faster, easier, safer.

# 25% over portable power tools

says HERMAN HORSTMAN, JR., Horstman, Inc.

Erie. Pa. Home Builder



A wall section goes into place—a precision fit. Three men in the shop cut a complete house in a day, with the Delta radial saw; and four men erect a home, ready for rock-lath in two days!



On-the-job sawing center builds profits for Metcalfe-Hamilton, Kansas City builders. Close up shows typical sawing shed at apartment house project. Delta radial saws, because they are more versatile, make more a need less maintenance, are ideal for construction work.

"With our Delta radial saw and three men working in the shop we turn out a complete pre-engineered house in a day," says Horstman. "That saw cuts everythingrafters, gables, cornices, trim, stair pieces, studding, window mouldings and more; and has paid for itself many times over."

Careful cost analysis proved to Horstman that the Delta saw would do a better job than portable tools or conventional carpentry. "Delta accuracy has proved just as important as the laborsaving it brings about," savs Horstman, Jr.; "Wall sections and partitions fit with precision; and wastage has been virtually eliminated-a vital saving."

Isn't it common sense to find out how alert building firms are boosting profits by utilizing the speed and accuracy of Delta tools? Easy enough-simply send for complete data on Delta radial saws-and talk to the Delta dealer, listed in your classified telephone directory under "Tools," Use the coupon for latest catalogs.

DELTA QUALITY POWER TOOLS

Another Product of Rockwell



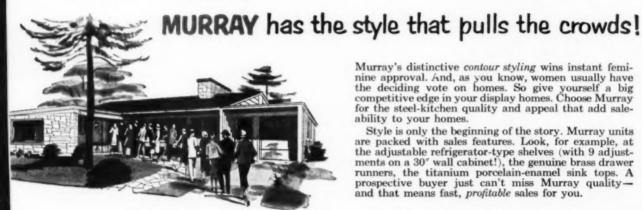
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# Get the style and the savings





Murray's distinctive contour styling wins instant feminine approval. And, as you know, women usually have the deciding vote on homes. So give yourself a big competitive edge in your display homes. Choose Murray for the steel-kitchen quality and appeal that add saleability to your homes.

Style is only the beginning of the story. Murray units are packed with sales features. Look, for example, at the adjustable refrigerator-type shelves (with 9 adjustments on a 30" wall cabinet!), the genuine brass drawer runners, the titanium porcelain-enamel sink tops. A prospective buyer just can't miss Murray quality and that means fast, profitable sales for you.



# MURRAY gives you in kitchens!

CUT JOB COSTS... REDUCE INSTALLATION TIME...
END SERVICE PROBLEMS!

There's no better time than right now—when you are getting ready for National Home Week—to look into the important competitive advantage possible with Murray kitchens. No finer line of steel kitchen units is available.

The new Murray Builder Department is dedicated to the idea that you want sales appeal and savings. And that's exactly what you get!

Delivery to your job site can be timed to eliminate costly ware-housing. Murray units are easily installed, even by an inexperienced crew. And, of course, there's no painting expense. No slow fitting or finish work on the job. Best of all, you can count on satisfied buyers. You won't be called back to correct a warped door or a sticking drawer.

Send the coupon now for complete details. In every way you'll find Murray best for the homes you plan for National Home Week—and every other week of the year!

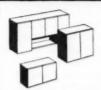




Cabinet sinks in 12 models
— single and twin bowl.



Base cabinets in 15" to 36" widths. Vinyl tops in eight colors. Also maple cutting-board top.



Wall cabinets in both 18" and 30" heights, 15" to 36" widths. Also new 54"-width cluster wall cabinet.



Many specialty units condiment cabinets, end shelves, broom cabinet, Lazy Susan corner cabinets.



New Murray Food Waste Disposer. Super-quiet, continuous feed.



TIMED DELIVERY to job site



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no on-the-job assembly



SATISFIED CUSTOMERS

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Send me further information on advantages Murray kitchens offer a builder.

Name_____

Zone

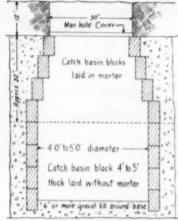
# ask the Opports about

### dry well construction

We received an inquiry on the construction of dry wells, and were wondering if you would be able to send us information on this particular subject.

E. A. B., Detroit, Mich.

Grade Line



Dry wells are a good method of dissipating discharge liquids from septic tanks where soil such as gravel, sand, or other porous grounds, exists. They seldom are a success when installed in soils of a texture that will not absorb moisture rapidly.

It is suggested that you dig a hole at the location of proposed dry well, 12 inches square and 18 inches deep; fill same with water and permit it to seep away. Then put 12 inches of water in test hole. If this last 12 inches will leave in 15 or 20 minutes or less, then the dry well should make a good disposal system. Drawing shows sketch of a type recommended.

### is a one-ply floor sound?

Is a single thickness of 34-inch plywood all right for a floor if applied per the enclosed sketch?

The house is to have a full basement, one-story frame.

Should 4-foot by 8-foot sheets be applied to joists as indicated, or is there a better way?

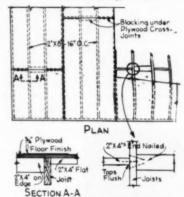
Is it a "must" that two thicknesses of plywood be used, and if so, would \( \frac{1}{4}\)-inch be all right for top layer?

- Planning
- Concrete Work
- Framing
- Roofing
- Heating and Plumbing
- Air Conditioning
- Wiring
- Insulation
- Interior Finish
- Power Equipment

If one layer only is to be used, I intend to cover it with paper before plastering to keep clean.

Does not have to meet FHA requirements, but would this type of construction be approved by anyone else?

A. W. K., Saginaw, Mich.



I can see no particular problems other than those which you have indicated. The main consideration would be to protect this single floor during the course of construction, so that it could be used for a finished floor covering such as you indicated.

You are undoubtedly aware that with this type of construction it will be necessary to run all plumbing and electrical pipes that are sometimes installed between floors in some other manner. In this instance, I suppose it would have to be the basement ceiling. If your area requires a conduit on the electrical work, this could increase the cost of this phase of the work.

Single floors have been tried in other areas, but careful attention must be given to the blocking to prevent deflection in the joints. Where this is not done, considerable difficulty has been encountered.

I suggest you check this construction with local building ordinances.

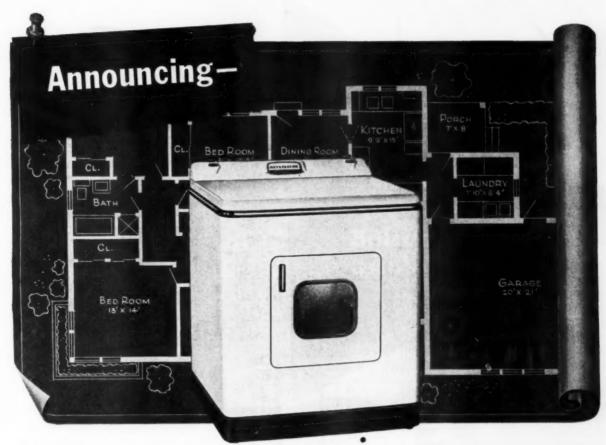
GOT a problem you haven't solved? Can't solve? Haven't the

Have you solved a problem with an answer you aren't sure of? Are you doing some particular job—big or little in a way that you think might be improved?

Then "ASK THE EXPERTS"—a group of industry authorities—experts in their fields. They'll give you the answer.

Address your questions to: "Ask The Experts." American Builder, 79 West Monroe St., Chicago 3, Ill.

As many questions and answers as space permits will be published monthly in *American Builder*, under the head—"Ask The Experts."



## Kelvinator's newest help to home sales the triple-safe automatic dryer!

When prospects "look over" a new home, they expect to find a refrigerator, range and all the other kitchen appliances. More recently, they began looking for an automatic washer, too. And now they're looking for, and expecting to find, an automatic dryer! So why delay? Get the jump on competition by equipping your new homes with the new Kelvinator Dryer-the automatic dryer that's triple safe!

1. Kelvingtor's Safe Temperature of 150° dries all fabrics—even the new miracle fabrics-without harm. Warm, gentle breezes are

used instead of high, harmful heat. 2. Kelvinator's Safety Cylinder is glass-smooth porcelain, which protects clothes from snagging, tearing, staining. 3. Kelvinator's Safety Door stops the machine when opened. This is not only a safety feature with children, but it permits women to remove or add clothes at any time.

When women-and the men, too-see the new Kelvinator Automatic Dryer, along with the Kelvinator Automatic Washer and many other Kelvinator electrical appliances in your home, you've gone a long way toward making a sale!

### **Better for Builders**

- ★ Operates on 230 or 115 volts.
  ★ Outside venting! No damaging steam or moisture in room.
  ★ Easily vented! Use common 3" tubing. From back or right side for versatile installation.
- ★ Flexible installation. No danger of pressure drop.
- * Lifetime oiling. Requires no further attention.
- * No bolting down. Adjustable screws for floor level installation. 
  * Full-length lint trap—in front at bottom increases lint-catching efficiency. Can be removed easily.

### **Better for Home Buyers**

- * Easier to operate! No temperature dial . . . No adjustment needed for different fabrics
- * New safety for all fabrics, plastic buttons. Load them together!
- * Quieter operation.
- ★ No roughness on clothes! Drying drum is glass-smooth porcelain.
- * Softer, fluffier drying . . . from more air, less heat.

  * Safety stop door—stops machine when opened. Permits easy inspection or removal of clothes at any time.

  * Saves ironing. Many clothes are fluff-dried . . . ready to put away,

See Kelvinator's complete Laundry Line-For more details, write to Dept. AB-8, Kelvinator, Division of Nash-Kelvinator Corporation, Detroit 32, Michigan.

IT'S TIME TO GET

AND BE YEARS AHEAD

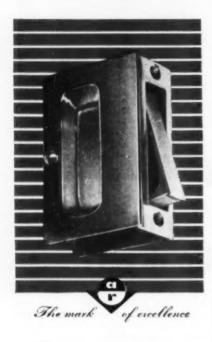
Electric Refrigerators . Electric Ranges . Home Freezers . Electric Water Heaters . Kitchen Cabinets & Sinks . Home Laundry Equipment . Garbage Disposers . Room Air Conditioners . Electric Dehumidifiers

AUGUST 1953

# Announcing the New

### RITE-PULL

NO. 100



This fine new Adams-Rite No. 100 combination pull incorporates two flush pulls and an edge pull for use on sliding doors. The flush pulls are deeply recessed and the edge pull is equipped with a spring return.

The pull is easily installed by merely notching the door and is adjustable to fit doors from  $11_6^{\circ}$ " to  $13_8^{\circ}$ " in thickness. The escutcheons measure  $39_{16}^{\circ}$ " x  $25_{16}^{\circ}$ ". A cutout template is packed with each unit.

Like all Adams-Rite quality products, the pull is made of solid brass . . is available in seven standard finishes . . . and is hand polished.

WRITE FOR COMPLETE INFORMATION



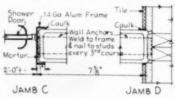
SPECIALIZED LOCKS AND BUILDERS' HARDWARE

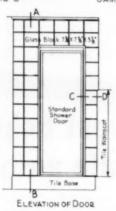
# ask the Oxports

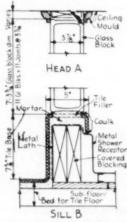
### fitting frame to glass block

We are installing a glass block wall in a shower stall, and to date have found no way to adjust and set a frame for the glass door to be installed. If there is a way to do this, please let me know.

R. V. P., Downers Grove, Ill.







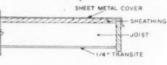
Regarding your specific question of how to install the door in the glass block panel, we refer you to jamb C on the drawing. This shows a corner door in a shower. In this detail, an aluminum channel frame serves as the jamb frame for covering the glass block, and the aluminum frame of the door is fastened to this channel. These drawings also show the use of a standard shower door 24 inches wide by 66 inches high. The other drawings show the normal construction of glass block used for a shower stall.

Kimble Glass Co., Toledo, Ohio

### roofing a balcony

I would like information on the best type of covering material for joist-extended balcony which is exposed to the weather.

G. B. S., Salt Lake City, Utah





The drawings indicate two methods that can be used to cover a balcony exposed to the weather.

## door cores — where can they be bought?

Can you advise me of sources for pre-milled stock for honeycomb cores for doors and custom panels? Material selection is not critical—white or Ponderosa Pine, poplar, or any economical material with good gluing properties.

E. B. B., San Bernardino, Calif.

While most of the factories comprising the National Woodwork Manufacturers Association, Inc., manufacture hollow-core doors, we do not know of any who make a specialty of manufacturing the core material for hollow-core doors or the panels for such doors. In other words, those among our particular group who are engaged in this particular business manufacture core stock and panels for their own use but not for sale to others.

National Woodwork Mfrs. Assn.



New economies in masonry home construction are possible today with the new SCR Brick developed by Structural Clay Products Research Foundation. And today, Balsam-Wool stands out as the ideal insulation for an SCR Brick wall. Here's why:

* Balsam-Wool, with its remarkably low thermal conductivity factor of .25 is one of the most efficient building insulations known today.

* Moisture resistance of Balsam-Wool exceeds government specifications. The warm side liner of this sealed insulation is a highly efficient vapor barrier. Both liners are weatherproof and waterproof.

* Balsam-Wool will not settle because the insulation mat is bonded to the liners.

* The rugged asphalt liners of Balsam-Wool stop wind penetration, and tests show that in brick wall construction, there is a definite need for wind protection such as Balsam-Wool blanket insulation provides.

* Balsam-Wool Sill Sealer provides an effective job of sealing the joints between the top of the brick wall and the plate. Balsam-Wool Sill Sealer is a felted wood fiber blanket 6" and 8" wide with a moisture-resistant binder.



Special staple insert for quik-way clip easy Balsam-Wool is easy to apply. Complete information is available in a special builetin prepared by Wood Conversion Company for SCR Brick wall application. Mail the coupon for your copy. application

Dept. 119-83, First National Bank Building
St. Paul 1, Minnesota
Please send me a sample and technical bulletin containing complete in- formation and application data for the use of 
Name
Address
CityState

"It's open and shut with no work at all..."

electric Garage Door Operators



### These R-W Features

ARE IMPORTANT SALES MAKERS

- Easy to install—Completely assembled, with track, in a single carton at the factory.
- Easy to service-Simple adjustments requiring no special tools, keep the doors working smoothly.
- Safe—A large friction clutch prevents operational failures with resulting damage to property. In power failure doors may be operated manually.

### And FOR UNBEATABLE CONVENIENCE, IT'S R-W 999 GARAGE DOOR HARDWARE



Here it is . . . complete overhead garage door hardware conveniently packed in one box. No. 999-1 for doors up to 9 ft. wide weighing not more than 200 lbs.; No. 999-2 for doors up to 16 ft. wide weighing not more than 375 lbs. Write for folder giving free details.

trols, engineered for dependability and efficiency:



No. 1251 Standard Control operates from driveway key



No. 1504 Radio Control



operates from dash control button, opens and closes doors within 75 feet. Also operates doors from inside gorage.

For complete information on R-W AuT-o-DoR line write for catalog number A-87.

Richards-Wilcox Mfg. Co.

220 THIRD STREET, AURORA, ILLINOIS



SLIDING DOOR HANGERS & TRACK • FIRE DOORS & FIXTURES • GARAGE DOORS & EQUIP-MENT • INDUSTRIAL CONVEYORS & CRANES • SCHOOL WARDROBES & PARTITIONS • ELEVATOR DOOR OPERATING EQUIPMENT

AMERICAN BUILDER

# HASKO TOUR

with a "FLEX CORE". 3

...has a simple, sound assembly for maximum strength and durability yet is made to meet the price market.

This adaptation of the hollow-core principle meets the demand for high quality and low cost. This is another engineering achievement by HASKO for the builder who needs better flush doors. It is truly an economy door of outstanding quality.

LOW COST The HASKO "MOBILE" FLUSH DOOR is priced competitively, and is made and backed by a responsible manufacturer.

QUALITY GUARANTEED The HASKO "MOBILE" FLUSH DOOR carries the same guarantee and responsibility as the famous Hasko Arch-Kor Flush Door. It features "balanced" construction, and the warp-resistant, sound deadening and proper ventilation characteristics engineered into all Hasko Flush Doors. Its frame is constructed of selected kiln dried lumber and allows a generous amount of stock for trimming, plus sturdy 3/16" thick face panels.

**8-WAY HANGING SPEEDS INSTALLATION** Large 3x 25 (5x 25 including frame) double lock-blocks provide for fast, easy 8-way hanging of the HASKO "MOBILE" FLUSH DOOR.

FLEX-CORE INCREASES LIFE, ASSURES PERMANENT BEAUTY The entire core construction provides complete support of the sturdy (3/16" thick) face panels. An additional feature of the door is in the use of the "Flex Core" core ribs. These provide a resiliency and flexibility that give the face panels an unusually high degree of resistance to denting from heavy impacts, or damage from warping, and assure great durability.

**TESTED** Thorough tests prove durability. The HASKO "MOBILE" FLUSH DOOR has withstood kiln tests of as high as 48 hours at 170 degrees. The Hasko name means sound construction, high quality, expert design and craftsmanship.

WRITE today for the special HASKO "MOBILE" FLUSH DOOR Bulletin. Orders will be filled in the sequence in which they are received.

HASKO®

HASKELITE MANUFACTURING CORPORATION

Great Repids 2, Michigan

# GUARANTEED to

help you sell!



- 1. Improved Heat Exchanger Gives More Heat.
- 2. Aluminum Foil Faced Fiber Glass Insulation,
- 3. Burner Plate Easily Removed
- Oil Burner Interchangeable with Gas Burner.
- Stainless Steel Combustion Chamber.
- 6. Removable Vestibule Door.
- 7. Single Exhaust Vent.
- 8. No Metal to Metal Contact at Division Panel.
- 9. Two Large Air Filters.
- 10. Quiet, Powerful Blower.
- Solid Base with Leveling Screws.
- Radiator Side Pans Increase Heating Surfaces.

All MOR-SUN HEAT EXCHANGERS guaranteed for 10 years!

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AUTOMATIC

### **WARM AIR FURNACES**

You have no heating guarantee problems when your homes are equipped with MOR-SUN Warm Air Conditioners. You have no guarantee worries because MOR-SUN backs up the Center of Efficiency of its furnaces with a bona fide 10 YEAR GUARANTEE on all its Heat Exchangers. Other elements of the MOR-SUN Furnaces carry a one year guarantee. The improved MOR-SUN Heat Exchanger means added value, too. It is seam welded of heavy gauge steel and engineered to give top performance with MOR-SUN Gas or Oil Burners. Its larger radiation surfaces step up heat transfer — deliver more heat per fuel dollar. MOR-SUN Furnaces are the "answer" for Builders who demand more quality in their homes ... they are guaranteed so that your selling will be easier.



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Also manufacturers of Roly-Door Steel Sectional Garage Doors and Carry-All Truck Bodies

## ask the Osperts

### use of oak flooring

Please advise if it would be good practice to use oak flooring for a cottage at a lake, where there is considerable moisture the year around. M. J. M., Simpson, Pa.

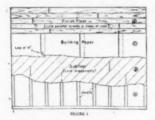


Fig. 1: Cutaway view of floor showing details of construction

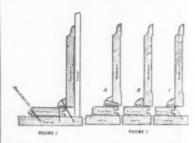


Fig. 2: Laying first strip of finished flooring. Fig. 3: Three methods of placing first strip of flooring and nailing shoe moulding

Installations of oak flooring are serving satisfactorily in the humid areas of the Gulf and Pacific Coast states and there is no reason to anticipate any particular difficulty on the shores of a lake if certain precautions are taken.

In the case of an installation in a lake-side cottage, we suggest that the flooring be delivered to the building five to seven days before installation; the bundles broken and the flooring piled loosely inside the structure. When laid, expansion space of one-half inch or more should be provided around the perimeter of the room with the space being covered by the baseboard and shoe. The flooring strips should not be driven together tightly. We might also suggest that quartered flooring or flooring of a width narrower than the usual 21/4 inches be used to minimize lateral dimensional change.

National Oak Flooring Mfrs. Assn.

# ENGINEERED FOR QUALITY at a LOW COST

Kausline "JERSEY 75"

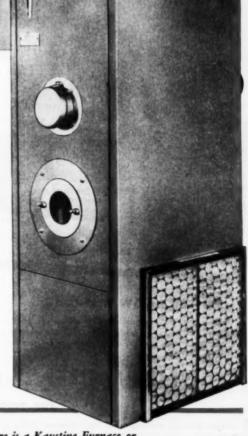
• KAUSTINE ENGINEERING enables you to give the home buyer a top quality heating plant unsurpassed in its ability to deliver maximum heat per fuel dollar . . . at a competitive cost.

You need only to compare Kaustine quality, price, installation costs and their phenomenal operating and service performance to be convinced.

The popular "Jersey 75" with its typically efficient Kaustine "TEAR DROP" heat exchanger system is an ideal unit for small homes. This fully automatic oil fired forced warm air furnace requires a minimum of installation time and only 3½ square feet of space. It delivers 75,000 B. T. U.'s and is shipped factory assembled and completely wired. Weight 324 lbs.

WRITE FOR FULL INFORMATION TO DEPT. AB-8





There is a Kaustine Furnace or
Winter Air Conditioner for every type of home.



# COLEMAN

backs Blend-Dir-the



Now, the Comfort Bond that guarantees comfort—makes the "revolutionary Blend-Air heating system" the fastest selling package with the strongest-ever "buy-appeal"!

# THIS COLEMAN BOND

Guarantees First Year's Comfort with Blend-Air!



### BUYERS KNOW BLEND-AIR

Coleman national advertising keeps the public posted on America's revolutionary low-cost system . . . gets your homes quicker, better acceptance from the start.

You can sell homes faster with a Coleman Comfort Bond. It tells the buyer that added to the Coleman reputation for dependable service is the Coleman Bond, assuring him complete satisfaction of whole-house warmth with any Blend-Air installation that meets the specifications set forth in the Bond. Coleman makes this offer because nation-wide performance proves Blend-Air assures a better heated home. It makes your Blend-Air installation a big asset in selling homes.

With Bonded Blend-Air Comfort the home owner is sure his home will be kept heated and ventilated with freshly blended warm air that reaches every nook and cranny. No stratified, stagnant areas; no cold floors and hot ceilings. Uniform temperature - practically the same from floor to ceiling. Ideal "perimeter heating." Blend-Air is the easy-to-install heating installation with a coast-to-coast list of satisfied users. Gives your prospects what they want in complete modern home comfort. Send the coupon now for complete information. The Coleman Company, Inc., Wichita, Kans,

### NEW! BLEND-AIR CONDITIONING

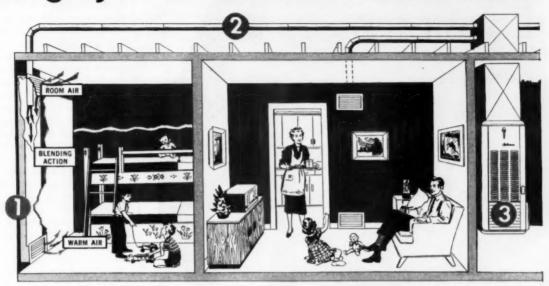
for summer-winter comfort

Low-cost new air cooling unit that removes twice as much moisture from the air as conventional systems. Gives crisp mountain cooling; not damp, clammy cold. Operates with same blender action to give fresh-over room circulation.

Uses same plant, distribution and air blending systemsattach cooling unit any time. The system that improves air conditioning. Install heating equipment now-add cooling later, often as little as \$6.70 a month under FHA terms. another big sales first!

# COMFORT BOND

heating system that sells homes faster



### BONDED COLEMAN COMFORT

WITH LOW-COST BLEND-AIR INSTALLATIONS

A MAGIC BLENDER in every room blends room air with freshly heated furnace air right in the wall, then REcirculates it for constant, even warmth. Controls individual room temperature.

31/2-INCH AIR TUBES carry freshly heated air from furnace to blenders.
Easy to install – prefabricated – with adjustable

sections to bend around obstacles. A real advantage - saves time, makes every job easier.

BLEND-AIR SAVES SPACE — furnace uses as little as 6 sq. ft. Install in basement, closet or utility room. Fresh-air intake insures continuous supply of freshly heated, filtered air through individual air tubes. Simplified return-air system.

Comfort costs so little with a

AMERICA'S LEADER IN HOME HEATING



THE COLEMAN COMPANY, INC. Dept. 751-AB, Wichita 1, Kansas

Please send full information on Bonded Heating Comfort with Coleman Blend-Air.

Oil Gas LP-Gas

Name

Address

"IE IT ISN'T COLEMAN - IT ISN'T BLEND-AIR"



# ask the Opports

### are specifications necessary?

In writing out a contract I use the FHA form #2005 "Description of Materials." The loan company sometimes asks for specifications. What is generally expected in these? I would think that form #2005 should be sufficient for houses.

I. A. B., Portland, Ore.

A specification for house building and for the purpose of meeting the requirements of the loan companies should be written with the interest of the owner and the loan company in mind. The owner wants a complete job with as few "extras" as possible. He wants to be protected against inferior material and workmanship and against litigation arising out of accidents, labor disputes. etc. From the loan companies' point of view, they want specifications that will insure the durability of the building for at least the duration of the loan.

With these two thoughts in mind, the specifications should contain at least the following points:

The general conditions should cover a statement of all work to be done by the contractor and his responsibility for such items as permits, insurance, damage to public property and incidental fees. There should be a statement that the contractor carries such insurance as will protect the owner from damages due to accident or death. The contractor should show evidence of such insurance. The specifications should cover guarantees of his work.

There should be an outline of each trade and all work must be covered. Under each trade should be a scope of the work, the quality and kind of material, special methods of application, performance and standards of workmanship.

Equipment, fixtures and furnishings should be listed stating standards, brands, quality and performance. When necessary, methods of doing certain work should be added. Allowances should be expressly stated for such items as electric fixtures, hardware or special equipment.

All work covered should be included such as landscaping, finish grading, etc.

# ATIONAL LOCK set



Beauty

Security

Security

Trouble-free performance

Fast, easy installation

BUY IT FROM YOUR WHOLESALER

DISTINCTIVE HARDWARE . . . ALL FROM SOURCE

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Mr. N. V. Bussmann, prominent midwestern builder now erecting modern homes in suburban St. Louis.



Mr. John Regier, prominent architect and builder of quality homes in Wichita.



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Mr. B. Stromberg, leading Chicago builder and creator of the completely air conditioned "Tribune House".



Mr. Robert Gerholz of Community Homes, builders of fine modern homes in the Flint, Michigan, area.

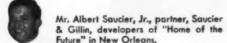


Mr. David Augustus, leading Indianapolis builder and creator of the "Morning Glory House".



Mr. F. C. Walters of Modern Builders, Inc., developers of Brentwood Village, Cincinnati.







Mr. F. A. Parker, now erecting 550 modern homes at "Birchwood" and "Ashford Park" in Atlanta.



Mr. W. G. Underwood, leading Dallas builder now developing the "Preston Hollow" area of Dallas.

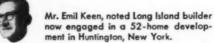


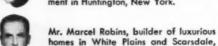
Mr. L. W. Prokop, leading Houston builder and president of Houston Home Builders Association.

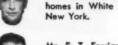


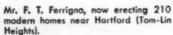
Mr. R. W. Cabaniss, a leading builder of custom homes in and around Richmond, Virginia.

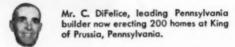














Mr. John Larson of John E. Larson & Son, builders of modern homes in Pittsburgh and Mt. Lebanon, Pennsylvania.

## RATE COMMAND-AIRE TWINS

# YEARS MOST POWERFUL SALES FEATURE!

The way Bryant's "Command-Aire" Twins are helping to sell homes for many of the nation's leading builders offers an opportunity for you. Specifically, it's year 'round conditioning that's . . .

20 to 35 per cent lower in cost!—to let you offer this one-time luxury feature in moderately priced homes—to mass market buyers. Moreover, you can offer . . .

Cooling initially, or later!—The "Twins" are independent heating and cooling units of matched design. Homeowners can install the furnace first (gas or oil) and add the twin cooling unit at their convenience. And you needn't worry about space because the "Twins" offer . . .

Unusually compact design! Using as little as 7% square feet of floor space, you can tuck them away in a closet, alcove, utility room or basement.

Some of the many prominent builders already enjoying faster, more profitable sales with "Command-Aire" equipped homes are listed on the opposite page. Why not investigate "Command-Aire" advantages yourself. And ask about Bryant's supporting program to help you sell your homes. Call your Bryant Distributor, or write: Bryant Heater Division, Affiliated Gas Equipment, Inc., 17825 St. Clair Ave., Cleveland, O.



## technical guide

for builders and craftsmen



Measuring to obtain leveling point for the application of first



Placing mastic on the wall in diagonal pattern. This will save mastic and permit overall coverage to the plastic wall tile



Applying the first tile . . . note the observance of the level line



This first course sets the perfection of alignment for the rest of the wall

# how to apply PLASTIC TILE

Whether the installation of plastic tile is for a remodeling job, or for a new wall in a new house, the steps to be followed in the interest of economy and clean work are the same.

It is important to plan all the details of the job before the first measurement is made, and to assemble carefully all of the tools that will be required. This preparation includes making a detailed sketch of the operation. It is equally important to square and plumb each corner before starting work. Low spots in the wall should be built up with plaster to create an even surface.

To get ready for the job, it is necessary first of all to provide chalk guide lines for starting the tile laying. In remodeling work it is found that floors are often irregular due to the building's settling. To overcome this condition it is well to determine either the high or low point of the floor in the room to be worked on, and then measure up from this point to the pre-established height of the wainscot. The wainscot height will be established by the design and the number and size of the tile.

(Continued on page 140)

# NEWEST INSULATION FULLY INSULATES FROM END TO END

Gives Every Fraction of an Inch Between Joists or Studs Maximum Protection Against Heat Loss and Condensation Formation.

CLOSELY hugging for its entire depth the studs or joists to which its flanges are stapled, a new, improved form of aluminum insulation gives complete insulation coverage over the entire surface area it shields. The protection afforded by multiple sheets of accordion aluminum against condensation formation and heatflow is increased at the ends.

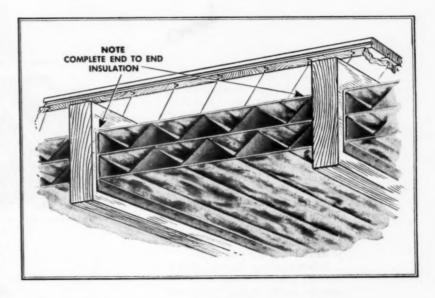
Like its predecessor, this new form of multiple accordion aluminum is prefabricated to create automatically a "blanket" of alternating layers of air, aluminum and fiber partitions as it is installed. But this "blanket" is now of uniform depth. It has high reflectivity, low absorptivity, and

low emissivity of heat rays; low conduction because of preponderant air spaces of low density. Its layers of aluminum and fiber retard outer and inner convection. Because of its slight mass there is little heat storage. It is practically non-condensation forming. A discussion of "how aluminum insulates—and why," will be found in "Thermal Test Coefficients of Aluminum Insulation for Buildings," published by the American Society of Heating & Ventilating Engineers. A free copy, and samples of the new insulation sent on request.

The new, "complete coverage," multiple accordion aluminum is being made the standard Infra Insulation, Types 6-S₁, 4-S₁.



525 Broadway, New York, N. Y. • WOrth 4-2241



### COST OF INFRA INSULATION INSTALLED

in new construction between wood joists, material with labor,

Type 6-5: under 91/2¢ sq. ft.

Type 4-S; under 71/2¢ sq. ft.

Type 4-5 Jr. under 71/2¢ sq. ft.

. 11----

Address_

### technical guide

for builders and craftsmen

(Continued from page 138)

After this height is set, by taking it from either the low or high base point, draw a level line at wainscot around the room, dropping a line down to the floor at regular intervals, minus the height of one tile, to establish a line which will mark the bottom edge of the first row to be installed. This working line is independent of the floor condition. Where a cove base is to be used, measure up to where top of base will come, then draw the line from that point and start applying the tile.

Before applying the tile, place a specially prepared mastic in vertical patterns on the section of the wall to be worked. Wipe trowel clean of all mastic and work it diagonally over the vertical pattern. This is done to make sure that the tile will be completely touched by the mastic, and to eliminate excessive application.

In setting plastic tile, start at the bottom and work up the wall—fitting each tile neatly alongside the other. In placing the first course, the important thing is to watch the leveling line. After the first course is laid, the alignment for the rest of the wall is made.

When encountering a plumbing fixture or an electric socket, plastic tile can be cut and smoothed with a file to custom-fit it to the wall.



Setting an interlocking above the feature strip



When cutting with the standard tile-cutting machine or a coping saw, be sure the tile is face down



Fitting plastic tile around an electrical socket



Applying the cove base after the entire wall has been tiled

Photographs and data courtesy of Jones & Brown, Inc., Pittsburgh, Pa.

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Find out today how you can start handling this profitable window by contacting the concern, listed below, that is nearest you.

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Malta Mfg. Co. Malta, Ohio

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GEORGIA

Malta Mfg. Co. Malta, Ohio

IOWA

Presto-Matic, Inc. 24th and Spring Streets Omaha, Nebraska

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Monumental Millwork, Inc. 1101 S. Brunswick Street Baltimore, Maryland Malta Mfg. Co. Malta, Ohio

### MISSOURI

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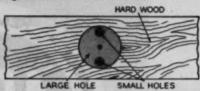
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## how would you do it?

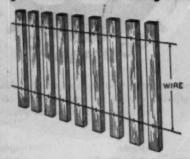
ideas for the man on the job

### drill holes if expansion bit doesn't bite



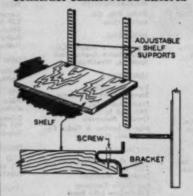
When boring a large hole with an expansion bit and it no longer bites, drill two small holes near edge, opposite each other. Cutting edge will hit these holes and continue to function.—August Reuter, Aurora, Ill.

### protect stone work during construction



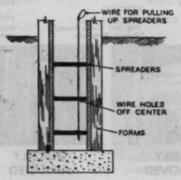
Lay out 1x3's or 1x4's the same height as stone work and fasten wire across top and bottom. For large areas, three wires may be required. Tip panel into place and fasten wires. Panel is useful for protecting curved stone entrances.—E. B. McFetridge, Apponaug, R.I.

### construct contilevered shelves



Cantilevered shelves can be made from standard shelf supports and brackets. Rabbet shelf to take bracket and insert screw to hold bracket. Shelf is then fastened to support and can be raised and lowered at will.—Rutur Thor, Los Altos, Calif.

### remove wood spreaders from form



Wood spreaders which hold apart foundation forms can be removed easily with this simple wire. Bottom spreader has wire fastened to it. The others have holes with wire going through them. After concrete is in place, wire is pulled out.—Carpentry Class, Grant Union High School, Del Paso Heights, Calif., L. J. Kiefer, Instructor.



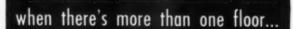


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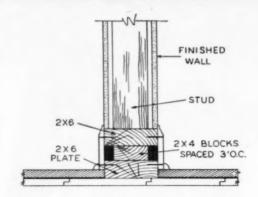
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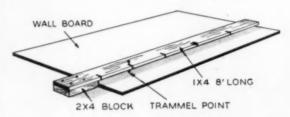
# how would you do it?

ideas for the man on the job



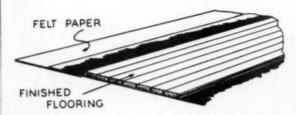
#### use of 2 x 6's for base backing

A 2x6 double plate provides a good backing for base and serves other purposes. The plate also can act as a plaster screed and, with 2x4 blocks between the 2x6 members three feet on center, you have space to run electrical wiring.—Arthur W. Nelson, Kansas City, Mo.



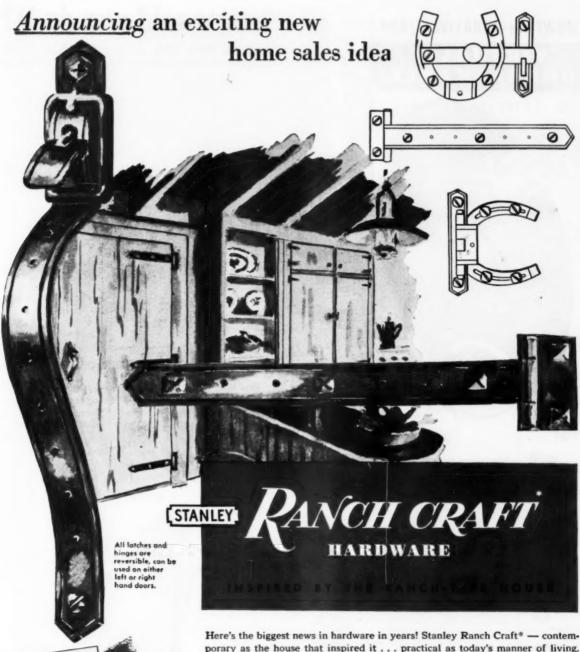
## faster way to mark wallboard

Take a 1x4 eight feet long and kerf notches every 16 inches. A 2x4 block is nailed to the end. The unit slides across the wallboard so two marks can be made for a perfect line.—Sidney Goldhor, San Leandro, Calif.



# correct way to lay paper under finished flooring

When laying flooring, the felt or building paper should be lapped so the top edge is away from you. Scraps, sawdust, etc., have less chance of getting under the paper.—Myron G. Miller, S. Williamsport, Pa.



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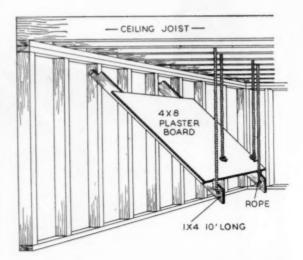
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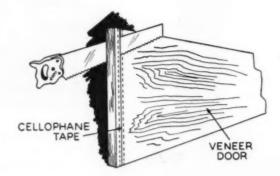
# how would you do it?

ideas for the man on the job



#### one man ceiling operation

One man can install plasterboard on the ceiling with a rig like this. Two 1x4's, 10 feet long, are used so ends can be tacked to stude as shown. Sheetrock is put on rig and pulled to ceiling. Ropes are fastened and Sheetrock is squared up and nailed. Rig is then moved to next location.—C. B. Stack, Saginaw, Mich.



## how to cut a veneer door cleanly

If a veneer door must be cut, a clean cut on the under side is possible. Place a piece of cellophane tape over the proposed line. Cut will be clean.—Alexander Johnston, Westlake, Ohio.

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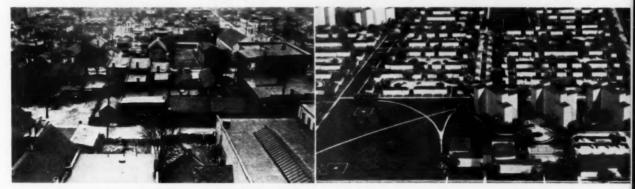
BUILDERS are at the heart of Detroit's program to redevelop slum areas. Harry J. Durbin (left) director-secretary of the Detroit Housing Commission, was for many years a builder of rental properties and is now responsible for the city's campaign to acquire slum land and clear it for sale to private builders. Joseph H. Kanter (center) is the first builder to purchase ex-slum land from the city for residential redevelopment. He has had a spectacular career since 1946 in the production of rental housing in Birmingham. Alabama; Cincinnati; St. Louis and Indianapolis. M. M. Robinson, (right), president this year of the Builders Association of Metropolitan Detroit, was one of the original proponents of the Detroit Plan for slum clearance and rebuilding by private enterprise. He will be associated with Kanter as a consultant on the new housing for the Gratiot area.

Ox FRIDAY, June 5, Joseph H. Kanter, comparatively unknown in the building business, signed a contract with the city of Detroit binding his purchase of 21 blocks (48 acres) in the heart of the city. Cleared of slum buildings by the Detroit Housing Commission, the land was ready for residential redevelopment. In purchasing the site, Kanter brought to a culmination seven long years of planning and action in Detroit on the slum clearance problem.

As president of the Housing Corporation of America, a subsidiary of the Warner-Kanter Companies of Cincinnati and New York, Kanter had acquired this land by an auction sale held in the City Council chambers. He bid against a combination of two Detroit firms. the Bert L. Smokler Co. and the Detroit Mortgage & Realty Co., and came out on top after 30 spirited minutes and 43 bids. His final bid was \$1.266,000, considerably more than the upset price of \$926,380 which the city had placed on its land.

Kanter's objective is to produce

The Housing Corporation of America bids \$1,266,000 for 48 residential acres in Detroit's first slum area to be rebuilt by private enterprise. In the Gratiot redevelopment project, near downtown Detroit, the builder has begun plans to construct 1,750 units of moderate-cost cooperative housing under FHA financing. Section 213



Annual tax revenue of the slum area was \$107,000. The rebuilt area will produce an estimated annual revenue of \$540,000

some 750 units in low density row houses and another 1,000 units in high rise buildings. He expects to finance all of these units as cooperative housing under FHA, Section 213, Title II of the National Housing Act (of which more below). Kanter is bound by contract to get approval for his building plans from the Detroit Housing Commission, the city department under which slum land is being cleared for redevelopment.

Kanter's 48 acres are located within the Housing Commission's Gratiot Redevelopment Project, a 128-acre slum which the city began to acquire for redevelopment purposes as early as 1947, and which it has been clearing with financial aid from the Federal government since 1950.

The Gratiot project is bounded by Lafayette, Hastings, Dequindre and an irregular line south of Gratiot Ave. It originally contained 985 buildings, mostly residential, with about 1,550 dwelling units. In addition to the 48 acres given over to residential use, the redeveloped area includes acreage for new buildings of Wayne University, a state hospital, a new expressway, a parochial school, recreation and park land, sites for commercial development and room for future expansion of churches and schools.

#### Detroit Began Back in '46

Most metropolitan centers have been struggling with the city rebuilding problem only since 1949 when the National Housing Act was amended to make federal funds available to cities for slum clearance and redevelopment purposes. But in Detroit a group of leading citizens began to tackle the problem as early as 1946.

The then-mayor, Edward J. Jeffries, Jr., was much interested in it, as were members of the Construction Industry Council of Detroit and the Builders Association of Metropolitan Detroit, Among these forward-looking builders and mortgage men were M. M. Robinson, William J. Guinan, Edward Kuhlman, Joseph Standart, Edward Brunner, Charles F. Edgecomb, Charles Oakman and Harry J. Durbin, who became director-secretary of the Detroit Housing Commission. Detroit's present mayor, Albert E. Cobo, was also a key

The Gratiot slum area was marked out in those early days and studied intensively for clearance and rebuilding. Everybody saw that public housing was not the answer, but how was private enterprise to tackle the job if the cost to acquire and clear a 40-foot lot would be an estimated \$4,000? It was realized that some plan must be devised which would bring the whole operation into scale with the budget of the private builder—if any progress was to be made.

Analysis and discussions led to the formation in 1946 of what was called the Detroit Plan—a local slum clearance and rebuilding program which was to be financed over a period of years by the increased tax revenue resulting from the increase in the tax base of the redeveloped area.

The city had a natural agency for carrying out such a program in the Detroit Housing Commission, a city department dealing with public housing. State legislation prior to 1945 had cleared the way for the Housing Commission to acquire and clear slum land. There was no reason why the city could not sell ex-slum land it owned for redevelopment by private builders.

The Housing Commission slowly began to acquire parcels in the Gratiot area by condemnation proceedings, but it took three Supreme Court decisions before the Commission had established an uncontested right to acquire land for this purpose.

All of this advance thinking and action in Detroit naturally put the city at the head of the line for federal assistance when such aid became available by the amended National Housing Act of 1949. Detroit was one of the first among U.S. cities to be awarded a capital grant for urban redevelopment under Title I as administered by the Housing and Home Finance Agency, Federal approval of the work begun in the Gratiot area was obtained early in 1950, and the project was officially designated as Project UR-Mich. 1-1.

#### Sale of the Land

By the summer of 1952, the program of acquisition and clearance had advanced to the stage where





Last structure to be demolished (above) and the first new building to be completed in the Gratiot area. The modern structure is a medical classroom building for Wayne University. Six acres were sold to Wayne as a site for new buildings

sale of the residential parcels was in order. Since some of the lots had been tax delinquent, the city was required to sell the land at public auction. The sale was advertised in out-of-town as well as Detroit newspapers, and although a number of interested builders were present, no bids were received.

This was due, in the opinion of the Housing Commission, to an unfortunate confusion in the wording of the sale purchase agreement which made it seem doubtful as to whether or not the new housing to be built could be financed as cooperative housing under FHA's Section 213. This difficulty was cleared up and a second auction was staged. This one was successful, producing Joseph Kanter's bid.

#### Section 213 Financing

Kanter's plan to use Title II, Section 213 financing as the vehicle for his project will test the cooperative housing approach as a suitable one for urban redevelopment work.

Section 213 provides for blanket mortgage insurance covering cooperative housing projects for middle income groups. In using it, the builder becomes the sponsor of a non-profit cooperative corporation made up of persons interested in living in the housing the builder proposes to construct. Members of the corporation join by buying one share, the amount of this share being determined by the total cost of the project. FHA insures 90 per cent of the replacement cost in the case of non-veterans, and up

to 95 per cent where at least 65 per cent of the stock is owned by veterans—all within maximum limits of \$1,300 per room. The members of the cooperative pay the difference between the amount of the mortgage and the total cost. Generally, this adds up to a very small cost per share.

There are two types of cooperatives under 213, one called the management type, the other being the sales type. Kanter expects to use the management type. Under this type, members of the cooperative pay a low monthly fee, or rent, to live in their apartment or house, with the cooperative corporation holding title to the property. Under the sales type, the housing units are sold to members of the cooperative upon completion of the construction. Each buyer may obtain a separate FHA loan to handle the purchase.

The maximum term for a 213 mortgage is 40 years, which is, of course, ideal for working with the medium- and low-income market. Maximum insurable amount of a 213 mortgage is \$5,000,000.

For the builder, the advantages of this type of financing seem considerable. He does all of his planning on a project basis. Before construction starts, he knows that the membership in the cooperative will all be sold and qualified. All of the basic plans and specifications are determined, the FHA-insured mortgage is arranged and the work is paid for as it progresses. Thus there are no sales or financing problems. The builder is free to

concentrate his attention on construction, achieving full economies and efficiency. Presumably all this makes him content with FHA's allowance of 7 per cent profit on construction, 3 per cent for architectural fees, and a 3 per cent allowance for organizational expenses including clerical, office and other overhead expenses.

The one great drawback to 213 operations has been the interest rate permitted by the law. It has been and still is 4 per cent, but a raise to 4½ per cent and 4½ per cent is expected. At this writing, bills are before Congress to accomplish this raise.

# The Biggest Problem is Relocation

Detroit's experience has been that the biggest problem connected with city rebuilding is the relocation of those people who live in the condemned area. Under the law, these families must be offered decent, safe and sanitary housing at a price they can afford to pay. The fact that most of them will be of the minority races complicates the problem. Just how did it work out in Detroit?

First of all, the Detroit Housing Commission discovered that about one-third of the families living in the Gratiot area were in the lowest income group and could not afford to pay an economic rent. Therefore, it was obvious that the only way to meet the legal obligation to these poeple was to relocate them in public housing.

Actually, 615 families were moved to public housing units. The Detroit Housing Commission's dual role as city rebuilder and public housing operator made this an orderly and efficient process. And it is at this point that public housing emerges as an indispensable tool in the city rebuilding process, for any true slum will have living in it families whose income is not sufficient to pay the rents private enterprise must charge to produce and maintain housing at an economic level. So far, public housing is the only answer for them.

Second, it was discovered that more than 60 per cent of the Gratiot families were able to pay an economic rent. In behalf of this group, the Housing Commission did everything in its power to stimulate the interest and cooperation of private housing managers and landlords. Expediters were employed by the Commission to scour the rental offices for openings, a relocation office was set up, many meetings were held at which the Commission presented the problem (and the opportunity) to landlords agents. The Commission and counted itself lucky to have had splendid cooperation from management people in the city, and to have had the burden of relocation largely lifted by their help.

Last, any slum area will yield a small group of families that are actually able to buy their own homes if forced into it. About 14 per cent or 190 of the Gratiot families did so.

All told, it took about two years to relocate the 2,100 families living in the area. Under the law, any of these people must be given priority on the new dwellings to be built on the site by private enterprise, but it is hardly likely that many of them could qualify financially.

#### Lessons Learned

Looking back over the long and rocky road that has finally led to success in city rebuilding in Detroit, Harry Durbin cites these as important conclusions from the experience:

 A favorable city administration is absolutely essential to any program of slum clearance and urban redevelopment.

(2) You must be able to sell public opinion on the good sense of slum clearance.

## WHAT DOES IT COST A CITY TO RECLAIM 125 ACRES OF BLIGHTED LAND?

#### Detroit adds up the figures

 Development expenditures for the Gratiot project, including planning and administration costs, legal services, acquisition expenses, real estate purchases, relocation of families, demolition (some 1,000 buildings), disposal of leases, etc.:

\$8,564,500 (of which \$6,200,000 the cost of the land,

2. The City of Detroit put into the project in non-cash grants-in-aid:

\$ 502,145 (of which \$214,000 was in scavenger lots and \$288,145 in supporting facilities, including park

- 3. Gross cost: \$9.066.645
- 4. Estimated sale of the cleared land for rebuilding by private enterprise: \$1,925,000

(by June, 1953, the city had realized \$1,266,000 from the sale of residential land alone, had some 23 more acres to dispose of for non-residential use)

 Net cost: Under the National Housing Act, Title I financing requires that one-third of the net cost be borne by the city, two-thirds by the federal government, Therefore:

\$7,141,645

\$2,380,549 \$4,761,096 (a capital grant paid

Federal government's share:

7. Paying the city's share:
From budgetary allowances for redevelop

6. City's share of cost:

ment planning in 1946, '47 and '48, Detroit had in hand \$1,500,000 in cash. Added to the \$502,145 in grants-in-aid (see item 2 above) this gave the city \$2,002,145 with which to meet its share of the net cost of the project

\$2,380,549 2,002,145

City's deficit:
 This amount is included in the city budget

This amount is included in the city budget for 1953 and '54

The above represents a five-year plan; that is, Detroit expects to close its books on the Gratiot redevelopment project in 1955, five years from the date of federal approval of the project in 1950.

(3) Slum clearance with help from the federal government is a slow process. Don't expect to accomplish the job overnight.

(4) If it is customary in your city to acquire municipal land by condemnation rather than negotiation, don't try to process too-large parcels. Detroit started out with condemnation proceedings on a 25-block parcel, which took six months to clear. Any upset to disqualify the condemnation jury in the midst of the proceedings (which could easily have happened) would have meant a serious and expensive setback. A much safer plan is to process small par-

cels of from four to five blocks.

#### Looking Ahead

For the future, Detroit is in real earnest about slum clearance and rebuilding. In addition to the Gratiot project, four more sections have been selected for redevelopment. One of them is an extension of the Gratiot area, and altogether they will use up the city's capital grant reservation of about \$9,500,000. This sum, representing the maximum federal capital grant to the city for slum clearance and redevelopment, equals \$150 for each of Detroit's 62,000 substandard dwelling units.



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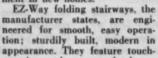
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by Herb Willson

(Advertisement)

EVER TRY TO BUY A KITCHEN like EVER TRY TO BUY A KITCHEN like those "super-duper" ones shown in leading women's magazines? Lots of women have had their appetites sharpened by the beautiful kitchens editors are showing. But they're plenty chilled after a few inquiries around town . . . there's nobody who can do the job! That is, unless she sees a MUTSCHLER dealer. Here's why MUTSCHLER custom-designed kitchen dealers are making a real "killing." It's the cream of the hardwood kitchen crop product-



ing a real "killing." It's the cream of the hardwood kitchen crop product-wise... and servicewise. If you're missing out on the big demand women's editors have been building up, better get the details from MUTSCHLER BROTHERS COMPANY, Nappanee 13, Indiana, without delay.



FOR REALLY TRIM, FINISHED-LOOKING flooring jobs, Fremont Rub-ber's VINACOVE is the tested answer. easy to work with, too, even around corners. VINACOVE comes in ten permanent colors, so you can blend it with any color scheme—then watch it

with any color scheme—then watch it sell the prospective home-owner! Its beauty sells, but it's practical, too, because it is easy to clean with a damp cloth and never needs refinishing. Once VINACOVE is installed it stays "put." It comes in two widths, 1½" and 4", and in long rolls—at low prices that surprised me and will please you. Write for samples. Fremont Rubber Company, 332 McPherson Highway, Fremont, Ohio.,

QUALITY IS BECOMING INCREAS-INGLY IMPORTANT in the new home market and that is the reason more market and that is the reason more and more builders are featuring GE-NEVA "Personalized" kitchens. These men have learned that because of GE-NEVA'S extensive variety of stock size



NEVA'S extensive variety of stock size wall and base cabinets . . and facilities for designing special cabinets to order, they are able to beautifully tailor a GENEVA kitchen to any room dimension without loss in time or materials . . . and at prices competitive with conventional kitchens. Let us send you the complete story on house you can make more money and sell your houses. how you can make more money . . . and sell your houses quickly with GENEVA quality. Write BG 1, GENEVA MODERN KITCHENS, Geneva, Illinois.

WHAT ABOUT PACKAGE **BUYING?** 

BUILDERS DEFINITELY PROFIT from planned packages prepared by manufacturers whether it is packaged combination window units, door units. complete kitchens, or heating-air conditioning units. Now builder-contractors are constantly under ever-increasing competition to build better. To do this, builders must comb the product market. Manufacturers stand ready to

help with planned packages—the product of skilled engineers. Don't hesitate to seek information direct from manufacturers about their products and merchandising suggestions. BUILDING BUY-WORDS by Herb Willson, 5510 Cornelia Avenue, Chicago 41, Illinois.

AUGUST 1953



%" in thickness-this time-tested HOMASOTE Underlayment is nailed directly to the rough flooring or cemented to the concrete under slab. Tile or linoleum is cemented direct to the for linoleum, Underlayment; felt should not be used. Under wall-to-wall tile and wall-to-wall

carpeting, no pad is needed. Send the coupon for carpeting complete details.

NOVA roller doors

for storage saces

and passageways

These are hollow core, flush doors-1%" thick-in finest plywood and lumber, for any waxed, stained or painted finish. Two or more doors enclose any storage space. Passageway door already assembled in its wall pocket. Mail coupon for details and sizes.



# HOMASOTE COMPANY NOVA SALES

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My lumber o	dealer is	C. Carlot					



Specially designed for home garages. Conveniently packaged, Easier to install than old-fashioned hinged door . . . more convenient because sliding doors are never in the way and can be as wide as desired. Adds extra value in new construction. Hinged doors in existing garages can easily be converted to sliding doors. Write Today For Catalog.

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NATIONALLY ADVERTISED in Leading Magazines SEE OUR CATALOG IN SWEET'S: Architectural file 1-Light Construction File VISIT OUR DISPLAYS: Architects Samples Corporation, N.Y.C. Chicagoland Home Building Center

# **Catalogs**

394 - SANDSTONE VE-NEER - Sixteen-page full color booklet tells builders the construction advantages in the use of this standstone, now available in standard-cut veneer, suitable for facing residences and commercial buildings. Numerous attractive patterns and tone combinations using standard 21/4-5- and 7%-inch heights are illustrated, with data on figuring wall coverages, specifications, information on setting with masonry back-up and frame construction. The Briar Hill Stone Co., Dept. AB, Glenmont, Ohio.



396-WOOD WINDOWS - Eight-page folder gives construction details. stock sizes, complete specifications and drawings of "Auto-Lok" wood awning window units. A rough opening guide lists single, mullion and triple units from one to five panes high, with stud openings for each. Triple awning windows with stationary side lights, and ventilating centers with stud openings also included. Picture window units, removable screens and storm sash discussed. General Woodcraft Co., Inc., Dept. AB, North Bergen, N. J.



395-TILE FLOORINGvinyl-surfaced, asphalt tile flooring in a choice of twelve colors is described in this four-page folder. Tile's flexibility, smooth surface, resistance to grease are stressed. Tile is available in 9x9, 6x12 and 12x12 standard sizes, in 1/4- and 3/16-inch thicknesses: feature strips are furnished in 1-, 11/2- and 2-inch widths in all colors and in black or white. Marbleized pattern of tile remains throughout floor life. Uvalde Rock Asphalt Co., Dept. AB, P.O. Box 531, San Antonio 6, Texas,





397 — HAND TOOLS — illustrating the manufacturer's line of woodworking craftsmen's tools, this new catalog describes augur bits, drills, chisels, gouges, spiral screw drivers, push drills and other tools for professional or amateur use. Copies are available either through hardware wholesalers or by writing direct to Greenlee Tool Co., Dept. AB, 2136 12th St., Rockford, Ill.

FOR MORE INFORMATION USE COUPON, PAGE 176

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A Richmond vitreous china lavatory provides the home owner with a fixture that cannot wear out!

Modern kiln-firing with temperatures up to 2300° F. produces a glaze hard as a natural sapphire. Impervious to stains and liquids, this durable surface is practically scratch-proof. It is easily cleaned with a damp cloth . . . always sparkles . . . requires only reasonable care in installation.

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National Homes' prefabricated panels and structural parts as they leave the assembly plant carry the Good Househeeping guarant seal and the Parents' Magazine seal of commendation as advertised therein.



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# its spring is the surprising thing...



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busy households run smoother. Every member
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This new concealed toilet paper holder originated by Hall-Mack strikes a note of quiet refinement in any modern bathroom.

Towel bar with pull-outs for extra drying space Handy Kleenez holder for will ar table top towal ring HALL-MACK

Recessed soap and grab Mirror doors slide open ... one of many fine Mall-Mack sabinets

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You'll use your bathroom accessories for many years to come — so make sure you get Hall-Mack's lifetime quality and permanent beauty.

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The completely new Ford Trucks offer many great advancements in easier driving and time-saving delivery, all at the same low price.

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Choose the one right truck for your work from over 190 completely new Ford Truck models.

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SAVE TIME! SAVE MONEY! LAST LONGER!

AMERICAN BUILDER

# Cataloas

398 - AIR CONDI-TIONER—for residential or commercial use, described fully with cutaway and standard views and explanatory text in four-page folder. By adding either of two tops. unit is converted to home or commercial type, cutting down quantity of dealer's stock items. Available in twoor three-ton capacities, with or without blower, complete specifications are included. ates-American Machine Co., Lipman Refrigerator Division, Dept. AB, Beloit, Wis.



400 — GARBAGE DIS. POSER - six-page folder shows complete features, including adjustable control drain cover, water-flow switch assuring complete shredding and disposal of food waste. Installation line drawings, waste-line and electrical rough-in data included. Engineering specifications give all necessary product informa-tion. Unit has one-year warranty, is UL approved. National Rubber Machinery Co., Plumbing Equipment Div., Dept. AB, Akron 8, Ohio,





399 - HOME OWNER'S GUIDE - 40-page booklet contains check lists and suggestions to aid potential home buyer or builder in selecting best value for price. Pertinent topics discussed include financing, types of mortgages, selection of site, what to look for in construction of existing houses, inside and outside. Booklet contains eight-page insert describing manufacturer's engineered modular materials with reasons for their recommendation. Wadsworth Homes, Inc., Dent. AB. 2949 Chrysler Road, Kansas City, Kas.



— CORRUGATED GLASS — partitions and windows made without wire of this material have increasing builder acceptance. This eight-page catalog explains product's uses, contains location pictures in homes and offices with detailed line drawings clarifying installations. Used as room screens, for stairway lighting and improved visibility, product offers other domestic and commercial uses. Pennsylvania Wire Glass Co., Dept. AB, 1612 Market St., Philadelphia 3, Pa.

FOR MORE INFORMATION USE COUPON, PAGE 176

# a COMPLETE LINE of DRY WALL TOOLS

.. another GOLDBLATT First

2.FOR.1 TOOL. For dry wall feathering. 2 flexible spring steel blades, 1 curved, 1 flat. Blades instantly interchangeable or may be used together if rigidity is desired. Each blade fits in either knife position, as illustrated, or reverse trowel position beneath the handle. Hardwood handle, steel ferrule. handle, steel ferrule.

DW21 — Complete with blades......Each \$4.95

DWFB — Extra Flat Blade......Each 1.75

(8" wide x 6" long)

DWCB — Extra Curved Blade.....Each 1.75

(8" wide x 4½" long) CORNER TAPING TOOL. 100° angle spring steel flex-o-blades make it possible to cement both sides of a corner at once. Tape can be smoothed to clean engle in one operation. Smooth, comfort-grip hardwood handle, Frog and teng of lightweight aluminum. 3" x 3". Total weight of tool only DWCT Fach \$3.95 CURVED BLADE TAPING TROWEL. For those preferring trowel style tool for toping work. Tool has a spring steel blade with a 3/16" concave radius. Blade is securely riveted to tough, lightweight aluminum mounting. Comfortable handle. Blade size 101/2" x DW34 Each \$3.95 DRY WALL CEMENT HAWK. Specially made for wall board work. Stainless steel blade measures 10" x 5" and has a 1" lip. Hawk weight only 18 ox. for lightweight comfort. Comfortable bracket type handle. Smooth surface makes this tool practically self-cleaning. DWCH Each \$2.75 TAKE-DOWN "T" SQUARE. 47%" leg with 18" "T".
"T" folds down to align with leg for convenient carrying and storage (see illustration). 47%" leg. perfect for scoring 48" wall board panels. Square weighs only 20 oz. DWIT

Items shown above are only a few of the many Dry Wall tools and accessories you'll find in the new Goldblatt Dry Wall Bulletin. Fill in coupon below and return today for your free copy. See your dealer or order direct on order blank below. We'll ship your order 24 hours after we receive it. Add 5% to cover postage and packing.

# nidblatt TOOL COMPANY

Kansas City 8, Mo. 1912-B Walnut Street ORDER BLANK Please send me Free Goldblatt Dry Wall Bulletin. Enclosed find my Check Name Money Order for: DW21 2-For-1 Tool, Address \$4.95 each DW34 Trowel, \$3.95 each DWCT Taping Tool, \$3.95 each DWCH Hawk, \$2.75 each DWTT "T" Square State \$5.25 each

# new products

# offered by manufacturers

#### AIR SANDER

AB85312

This new, smaller, reciprocating airpowered finisher weighs only four pounds. It is provided with a palm-size grip for operator comfort, an air switch-type control and automatic mist-type water spray for wet sanding. The unit has an abrasive holder for attaching several sheets of



sandpaper at one loading The sander operates at 4,500 strokes per minute, on air pressure of from 50 to 60 pounds.

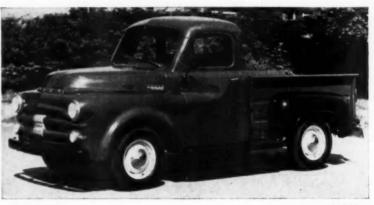
Slide action design for fastening the detachable sanding pads allows for up to a two-inch off-center adjustment of the pad, which permits sanding in grooves, up to protruding trim and in other hard to-reach areas. Detroit Surfacing Machine Co., Dept. AB, 1333 E. Eight Mile Road, Detroit 20, Mich.

#### WROUGHT IRON HARDWARE AB85305

Authentic Colonial New England wrought iton hardware, including H and H-L hinges for flush doors, door latches with closet bars, strap hinges, knobs, door pulls as well as blind and shutter hardware are available with plain or with



rust-proof parkerized finish. Items on display board, illustrated, are hand-hammered, Austin & Eddy, Inc., Dept. AB, 115 Broad St., Boston 4, Mass.



#### PICK-UP TRUCK

AB85306 to 40,000 pounds. Pick-up bodies have

Increased power, three entirely new engines, improved brakes and a self-shifting transmission for some light models are among more than 50 new features and improvements in the new B-4 Series of Dodge "Job-Rated" trucks. They are stated to meet approximately 98 per cent of all hauling needs with seven engines ranging from 100 gross h.p. in the half-ton (illustrated) to 171 gross h.p. in the four-ton models, and gross vehicle weights ranging from 4,250

#### ASBESTOS SIDING CUTTER AB85302

The Monarch asbestos siding and shingle cutter can be operated quickly and accurately by untrained personnel, thereby saving labor costs. The tool's malleable castings have high corrosion resistance and will stand up under heavy service. A



front-end nose punch and notcher help give the cutter faster action. The cutter is available in 27- and 32-inch sizes. The manufacturer also makes and distributes the Scout cutter, a small utility cutter for asbestos siding and shingles. Texas Foundries, Inc., Dept. AB, Lufkin, Texas-

#### BATHROOM SEATS

AB85307

A completely new bathroom seat, called "Bemis Molcor," consists of a one-piece solid core of high-content plastic resin and cured hardwood fibers, molded under high temperatures at 150 tons pressure. Both seats and covers feature two corecontained inserts imbedded at all points of hinge contact for extra strength and resistance to hinge screw pull. The seat is waterproof and non-absorbent; will not crack, split or warp and is available in black or white and 50 fixture-matched colors. Bemis Manufacturing Co., Dept. AB. Sheboygan Falls, Wis.

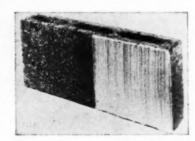
to 40,000 pounds. Pick-up bodies have metal skid strips for easier loading. A new "Truck-o-matic" transmission

A new "Truck-o-matic" transmission with "gyrol" fluid drive, available for the one-half and three-quarter ton models, brings new driving ease to the truck field, according to Dodge engineers. The transmission offers four forward speeds, and one reverse, requiring no gear shifting in normal driving. Dodge Division, Chrysler Corp., Dept. AB, 7,900 Jos. Campau Ave., Detroit 31, Mich.

#### MASONRY SURFACER AB85309

Anchor Masonry Surfacer is stated to halt seepage effectively and decorate walls in a single application. The product contains a finely powdered aggregate which seals leaks to halt them. Moisture in the wall carries this material deep into every open pore and crevice, where it hardens into a tough barrier. It seals all cracks, voids and joints, and offers a textured finish to old or new masonry walls.

The product is available in metal cans that keep it dry and usable at all times. Mixed with water it is applied with a brush and comes in seven colors and



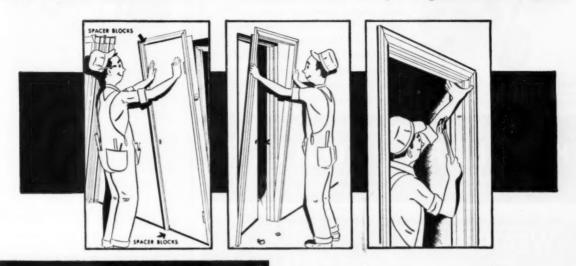
white. Distributor is Abbey Hart Co., Dept. AB, 17 Halsted St., E. Orange, N.J.

#### POWER KEYHOLE SAW AB85316

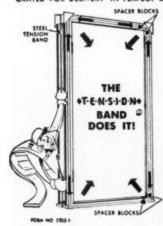
Designed for heavy-duty service, weighing only 6% pounds, this unit can be utilized on a wide variety of materials, including wood, galvanized sheet, Formica, and wire nails. The saw is provided with a % inch stroke, and operates at 2,250 strokes per minute. It is powered by a heavy-duty 110-volt universal-type motor, and is equipped with lifetime lubricated bearings. Milwaukee Electric Tool Corp., Dept. AB, 5368 W. State St., Milwaukee 8, Wis.

**FOR MORE INFORMATION USE COUPON ON PAGE 176** 

# IT INSTALLS IN 20 MINUTES! JOB ENGINEERED for installation in 3 easy steps



#### CRATED FOR DELIVERY IN PERFECT CONDITION



Tension in the steel band exerts equalized pressure (indicated by the arrows) at the corners to draw the frame in tight contact with the rigid door. Frame joints and mitres are therefore rigidly held square and tight by the door itself.

Spacer blocks between the door and frame serve a dual purpose: (1) They block the frame around the door during shipment, and, (2) Are used to maintain proper door clearances while the door is being installed. Faces are protected by cardboard when shipped by common carrier.

Slip the halves together in the opening and nail it to the wall

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NEW YORK, N. Y. Bailey-Whalen Company 17 Park Ave., W. Orange, N. J. SAN ANTONIO, TEXAS Ready Hung Door Mfg. Corp. 200 Seguin Street

SIOUX FALLS, S. DAK.

TORONTO, CANADA C. Lloyd & Son Limited 1214 Lawrence St., N. Park P. O., Ont.

READY HUNG DOOR CORP., Fort Worth 2, Texas

DOOR

AUGUST 1953



Madel 1.5M25, 1500 watts, 115 volt AC. Manual control. Weight 130 lbs. Also 115 volt DC weighing 101 lbs.

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## Save time and cost

Move jobs faster with electricity wherever the work is done-save expense and bother of temporary power line hook-ups. Portable, lowcost model operates saws, drills, grinders, pipe threaders and cutters. other tools. Develops 1500 watts AC. Engineered throughout by Kohler. Rubber-tired two-wheel cart available. Other sizes 500 watts to 30 KW. Write for folder 19-K.

Kohler Co., Kohler, Wisconsin, Established 1873

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WEATHER-BLOC can be used in existing glass block panels, or can be built into new panel construction as easily as a single

WEATHER-BLOC on the outside presents a series of horizontal louvers which blend with glass block and permit ventilation regardless of outside weather and assures absolute privacy no matter where the Weather-Bloc is located. The inside offers finger tip control of ventilation with adjustable louvers. Aluminum screen.

Beauty or Privacy

Controlled Ventilation Vandal-Proof From Outside Stainless Steel Body

WEATHER-BLOC IN STANDARD GLASS BLOCK SIZES MODELS

STANDARD— glass louvers outside and inside stainless steel louvers outside, glass louvers inside

ECONOMY—stainless steel louvers outside and inside. 6 and 8 inch sizes only

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A Product of AIR RECTIFIERS, Inc. 3734 NORTH SOUTHPORT AVENUE . CHICAGO 13, ILLINOIS

# new products

ATTIC FAN

ARR5321

This attic fan, recommended for contemporary style and ranch-type homes, is equipped with a built-in automatic shutter. A complete package, it was designed to bring installation costs to a minimum. No extras are required as it is a complete unit.

The fan, mounted on sealed ball bearings, is activated by a G.E. motor, completely wired with cut-off switch. A Venturi-type orifice affords maximum air



delivery. The unit has an ivory bakedenamel finish, aluminum ready-cut trim. Installation requires a 36x36-inch ceiling hole. Frigid, Inc., Dept. AB, 128-168 32nd St., Brooklyn 32, N.Y.

#### WINDOW-DOOR

ARRS31R

This window and door lintel is produced by the roll-forming process, which eliminates any twist and assures that the unit lies flat at both ends. Rib construction prevents wall drainage contact with the sash, and provides space for a solid bed of mortar. No tuck pointing is neces-SHIP

The lintel is said to meet safety and strength requirements for masonry construction. Available in two gauges and in

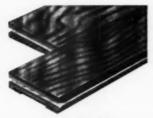


sizes from two feet to seven feet, six inches, it enables the builder to select the proper size and eliminate cutting and fitting on the job, Brainard Steel Division, Sharon Steel Corp., Dept. AB, Warren, Ohio.

FOR MORE INFORMATION USE COUPON, PAGE 176

# YOU CAN BUY WITH CONFIDENCE THESE

# DEL AIR-Products of Quality



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Prefinished and Unfinished



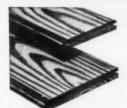
OAKBLOK FLOORS



OAK PLANK FLOORS



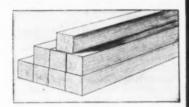
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SOUTHERN PINE PANELING



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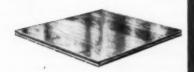
SOUTHERN PINE TIMBERS



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#### Prominent Builder Uses Roly-Doors Exclusively

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Why not make your selling easier...let Roly-Doors give your homes the extra value that turns quality-conscious prospects into enthusiastic buyers.

Fill in the coupon...learn the facts that lead Mr. Shipp to say of Roly-Doors, "... such a success that we are now installing them on all our homes."

#### ONLY ROLY-DOORS GIVE YOU ALL OF THESE ADVANTAGES • Four Sectional, Overhead Steel Garage

- · Will not ret, warp or absorb moisture.
- · Quiet, free rolling, ball-bearing opera-
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- · Low installation cost.
- · Conforms to any style of architecture.
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- Red oxide baked prime coat.
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- · Pin tumbler locks . . . keyable to fit home doors.
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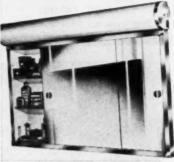
City Zone State In Canada, Roly-Door Distributors, Ltd., 1330 Bloor, W., Toronto 4.

Also manufacturers of MOR-SUN WARM AIR FURNACES and CARRY-ALL TRUCK BODIES

# new products

Sliding door bathroom cabinets, which double the storage space and mirror surface of conventional cabinets, are made in six pastel colors and stainless steel, designed to blend with standard tile and fixture colors. Twin sliding doors of heavy plate, copper-backed mirrors provide access to the cabinets' roomy interiors. Overhead fluorescent lighting is optional on all models.

Cabinets are available in 24- 30- and 36-inch widths, made of 22 gauge steel, spot welded with a one-piece steel frame. Interiors are finished in sprayed, baked-on



white enamel. Bulb-edge shelves are adjustable; two razor blade disposals are provided. Installation is made by four wood screws through the inside of the cabinet. Hy-Plane Manufacturing Co., Dept. AB, 1822 Cadwallader St., Philadelphia 22. Pa.

#### STEEL GARAGE DOOR

Two stabilizing arms which eliminate side sway are a feature of this one-piece, all-steel unit. There are 26 pieces of sponge rubber inserted between the framing and the door to keep sound waves from vibrating it. The inside of the track



is treated with a sound deadener so that the door glides forward and back almost

An adjustable track hanger can be placed at any point along the back half of the track, a feature which makes for faster installation. Factory-installed locking mechanism, heavier bracing, allwelded construction, an auxiliary lifting arm and simplified adjusting tension of the lift spring are among the unit's features. Steel Door Corp., Dept. AB, 359 S. Jessie St., Pontiac, Mich.

> FOR MORE INFORMATION USE COUPON, PAGE 176



# New "armor" on shingles resists dirt weather!

New Gold Bond Chroma-Tex Asbestos Siding Shingles give your houses the freshest colors . . . the richest graining . . . of any asbestos siding shingle. Now this beauty has brilliant extra life added to it by the exclusive Gold Bond Surfaseal Finish.

Surfased is a transparent protective coating—a tough "armor" that makes Chroma-Tex extra-resistant to moisture and staining...helps maintain Chroma-Tex's famous color freshness! You give houses tremendous added sales appeal...assure yourself

of client satisfaction . . . when you specify Gold Bond Chroma-Tex.

Maintenance-Free! Rugged Chroma-Tex just never wears out. The homeowner never has to paint for preservation!

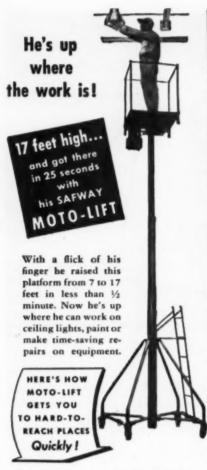
Fireproof! Chroma-Tex absolutely will not burn. It banishes fire hazard from sparks and flying embers.

Call Your Local Gold Bond dealer and tell him you want to see Chroma-Tex...the freshest-colored, most beautiful asbestos siding shingles on the market!

## NATIONAL GYPSUM COMPANY . BUFFALO 2, N. Y.

Lath, Plaster, Lime, Sheathing, Roofing, Sidings, Gypsum Roof Decks, Wall Paint, Textures, Rock Wool Insulation, Metal Lath, Sound Control Products, Fireproof Wall-boards and Decorative Insulation Boards.

You'll build or remodel better with Gold Bond°



 Moto-Lift raises 400 lbs. to 17 feet. Yet it is light and easy to use. Strong steel platform and all-steel tubular construction last a lifetime of hard use.

 Moto-Lift raises up to 50 times on one battery charge. No need for an electrical outlet. And battery recharge is a low-cost overnight job.

 Moto-Lift lowers safely in 10 seconds. An ingenious mechanical brake safely locks the telescoping tube if the power fails. Guard rails are safety code approved.

 Moto-Lift telescopes compactly to clear narrow doors. It's light enough to move quickly and easily. Compact for storage in out-of-the-way places.

No doubt about it. Dollar for dollar, Moto-Lift will outlast and outperform any other maintenance tower you can mention. For more facts write today. Or contact one of the 137 Safway dealers near you.

Write for this Free Bulletin

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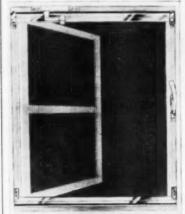




# new products

WIRE TENSION SCREEN

A tension screen to fit all standard and modular steel or aluminum casements equipped with under-screen operators is attached to the window frame with four metal brackets containing pre-assembled,



self-tapping screws. The two top clips are adjustable and control the amount of tension on the screen. Two lever brackets at the bottom of the frame are equipped with rollers. A lever draws the bottom bar of the screen toward the roller, then puts the bar into locked position. When the lever is raised, it ejects the bottom bar and screen may be lifted off the top clips.

Installation of the screen is made from the inside. The screen introduces a new type of wire cloth with a ribbon of metal woven into the selvage for greater durability where the screen extends beyond the daylight opening of the casement. Rudiger-Lang Co., Dept. AB, 2701 Eighth St., Berkeley, Calif.

#### SMALL PARTS CABINETS AB85320

All-steel cabinets for storing small parts have two 1½-inch high drawers in a one-piece welded frame, with an overall size of 3½x1x11 inches. Each drawer is furnished with eight dividers, giving the cabinet a total of 24 adjustable compartments.

The small cabinets are designed for insertion in the manufacturer's larger, 18-drawer standard parts cabinets which have an overall size of 34x13\%\cdot x12 inches.



Illustration shows two of the small parts cabinets substituted for four standard drawers in the larger unit. Precision Equipment Co., Dept. AB, 3714 Milwaukee Ave., Chicago 41, Ill.

FOR MORE INFORMATION USE COUPON, PAGE 176



# Try using RESINIZED® SPEED-GRITS® Floor Sanding Papers

Anytime your sanders can cut more footage per day with less time out for cover changes, you'll show a greater profit on the job.

RESINIZED SPEED-GRITS Papers can do just that for you. Why? Because they're DURABONDED® for extra anchorage strength and RESINIZED for immunity to high speed sanding heat. That means they resist loading and shedding, retain their hard, sharp cutting edges longer than other papers. You get quicker jobs, lower costs, higher profits.

Want proof? Name the time and place of your next job and we'll have a sanding specialist there to give you a free demonstration.



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Features that appeal to your home buyers . . . the Disposer that helps sell your houses because . . .

- ★ It is the quietest disposer made!
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- * Self-Lubricating, water-cooled motor.
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- ★ Grinds same size particles even after years of use!

# U/R is the Disposer you should install in the homes you build because . . .

- * Fast, one man plumbing installation
- ★ Easy-Lock, 360° rotated mounting
- * One trip replacement warranty plan
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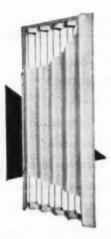
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Plants in Camden, N. J., Milwaukee, Wisc., New Castle, Pa., Redlands, Calif., San Antonio and Hondo, Texas.





# The Door with the double-strength frame

It's the extra steel frame, with double hinge plates both top and bottom that makes "Modernfold" the most dependable, easy acting folding door obtainable. For heights of 7' and for each additional 3½', another set of hinge plates are added to insure strength and rigidity—always.

Builders Ernest Zampese and William DeBenedet use "Moderfold" doors on closet and hall openings to help make homes attractive and comfortable at amazingly low cost—less than \$5,000 "on your lot." Says William DeBenedet of "Modernfold" doors, "we would say that 75% of our customers prefer them. In half of the houses we sell, 'Modernfolds' make the sale much easier."

"Modernfold" doors make your building operation easier, too. These sturdy folding doors can be installed in less than 30 minutes—complete. No planing, fitting, painting or extra hardware needed; no cornice or extra trim required. You save time, labor, materials—and make sales easier, with "Modernfold" doors.

For full details see our installing distributor—listed under "doors" in your city classified directory. Or clip coupon.

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Please	send	me full	details	on	"Modernfold"	doors.	

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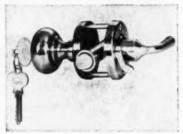
# new products

#### DOOR LOCK SET

AB85313

Combination screen and storm door lock set has a five-pin tumbler cylinder which enables the unit to be keyed with existing manufacturer's locks, or to be master keyed with other locks, eliminating the necessity of carrying extra keys. The lock set permits the combination door to be as securely locked as the main entrance door, and the inside door may be left open for ventilation with complete safety.

The set is installed by boring two 5%-inch holes. The unit is made entirely



of brass, with a drawn seamless case and through-bolt fastenings. Outside knob is pinned fast with a patented set screw used for the lever. The set can be used with door closers in assurance that it will function properly. Earle Hardware Mfg. Co., Dept. AB, Reading, Pa.

#### RADIAL ARM SAW

AB85319

The Comet Cub, a lightweight, multi-purpose radial-arm saw, has been redesigned by widening the work table by 8 inches, increasing the rip capacity to 24 inches, and allowing the operator to rip to the center of panels up to four feet wide. In addition, the table has been bored out so that the machine can be used as a shaper without additional attachments. A shaper fence, to fit the redesigned table, is provided as an accessory, but a home-made fence, fastened by "C" clamps, will also serve.

The unit operates at 7,000 r.p.m. to produce a smooth finish cut, the manufacturers state. The ¾ h.p. motor is



double-ended and provides a 12,500 r.p.m. shaft for shaping or other high speed operations. The radial-arm design of the tool is said to give high operational accuracy. Consolidated Machinery & Supply Co., Dept. AB, 2029 Santa Fe Ave., Los Angeles 21, Calif.

FOR MORE INFORMATION
USE COUPON, PAGE 176

Take this tip from plumbing contractors who know their business!

BRIGGS Beautyware





Briggs Beautyware sells! This glamorous plumbing ware sells itself—sells new homes that feature it—and sells the reputations of the men who specify and install it!

That's why so many alert plumbing contractors are displaying complete sets of Briggs Beautyware bathroom fixtures in their business places. They know that Briggs Beautyware sells on sight because of its distinctive modern styling—its graceful, eye-

pleasing contours - its handsome pastel colors.

Most important of all, when folks buy Briggs fixtures or Briggs-equipped homes, they know they're getting something special. More and more, they're asking for Briggs Beautyware by name. There's a sales-making place for Briggs Beautyware in the plans of every architect, builder and plumbing contractor in the home field. It will pay you to specify and install Briggs Beautyware in every home!

BRIGGS MANUFACTURING COMPANY · 3001 MILLER AVENUE · DETROIT 11, MICHIGAN



Combine the expertly-designed Allith garage door hardware with your own or any standard door. Result . . . a rugged, easily-operated overhead door that gives full and lasting customer satisfaction.

Quickly installed, standard set fits any opening up to 9' wide x 7'6" high when doors do not exceed 275 lbs. Other sets available for openings up to 10' wide x 10' high.

DANVILLE, ILLINOIS IN AMERICAN BUILDER for Forty-Five Years



Only straight-line action sands with-the-grain produces a satin-smooth finish free from cross-grain scratches and swid marks. That's why contractors and builders find Dremel Sanders best for finishing wood panelling, cabinets, flush doors, woodwork, dry wall icinits, stairways, custom furniture, etc. Light weight (anly 5 lbs.) and convenient one hand operation eliminate latigue on vertical and overhead sanding. Has a production-sized Classe, in a sanding pand-developes. 14 400 operation estimates overhead sanding. Has a production si [21-sq. in.] sanding pad develops 14, sanding strokes per minute. Fully guarante Approved by Underwriter's Laboratory.

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Write for FREE Dremei Power Tool Catalog

new products

PRECINICHED PANELING

Amerwood prefinished paneling can be quickly installed with a minimum of trimming and fitting by any carpenter or builder, according to its manufacturers. It is available in five decorator colors and is made from top-grade, 34-inch yellow



pine with an eased (shiplap) joint, Amerwood is offered in lengths of from four through 16 feet in two-foot multiples, with six- and eight-inch widths.

The paneling can be ordered in any combination of lengths and widths to fit a particular job. Its non-marring, easy-tokeep-clean surfaces are said to adapt to any plan of decoration. It is recommended for both residential and commercial installations. Amerwood, Dept. AB, P.O. Box 391. Fort Worth, Texas.

GEARLESS POWER-SAW

The new Acro Saw, which attaches to electric or air drills for its power, is said to save time and labor for its operator. The unit attaches directly to the drill spindle, or it may be secured in the drill chuck. It fits both 1/4- and 1/2-inch drills.



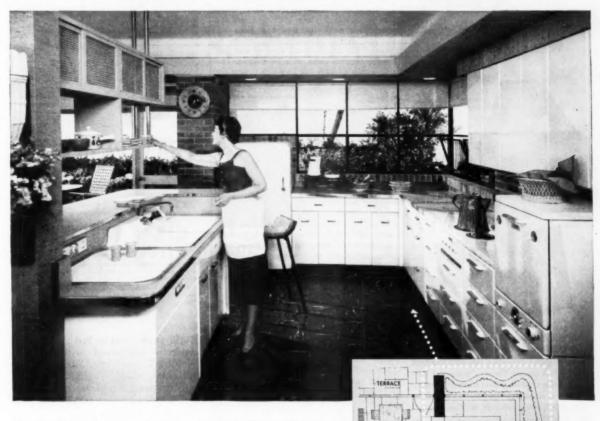
When the saw-blade is inserted in the holder and the drill is turned on, a rapid %-inch stroke does the cutting.

Saw blades with specially arranged teeth are available for cutting metals, as well as wood, plastic, etc. Operator can guide the saw to cut any curve or angle as desired. The saw cuts directly into wood without drilling a starting hole. Acro Tool & Die Works, Dept. AB, 4554 Broadway, Chicago 40, Ill.

FOR MORE INFORMATION USE COUPON, PAGE 176 New Kitchen idea from Crane's National Architectural Competition

# CRANE'S "WORK-FLOW" KITCHEN

... work-saving idea that makes your homes more sale-able



Here is still another example of the original thinking and practical planning that came out of Crane's national architectural competition. It's the "Work-Flow" kitchen-a kitchen so desirable that it can help to get approval for the entire home.

This plan gives indoor-outdoor spaciousness, yet provides for careful grouping of equipment according to functions.

For example, the food preparation and clean-up center features a gleaming Crane All-American sink and a dishwasher, set sideby-side in a colorful counter-top island of Crane cabinets to serve both kitchen and dining areas.

Opposite is the cooking center, with a combination of Select-A-Range units. At the far end is the receiving and storage section, with plenty of Crane cabinets grouped within easy reach.

The kitchen acts as a "control room" for the entire house. You can see from the floor plan how the architect has provided access and supervision for dining area, play yard, laundry, carport and

Many equally interesting ideas for kitchens, as well as for bathrooms and utility rooms, are now available in the big, colorful Crane Sketchbook of Ideas-free to builders. Ask your Crane Branch or Crane Wholesaler.

NO LOST MOTION. The "Work-Flow" kitchen is divided into three basic sections—one for food preparation and clean-up, one for cooking, one for receiving and storage each section so arranged that from the start of each meal to the clean-up that follows, all work moves in an orderly "flow". Winning design by Bernard H. Bradley, La Grange, Illinois.

COME TO CRANE FOR IDEAS

CRANE CO. GENERAL OFFICES: 036 SOUTH MICHIGAN AVE., CHICAGO S VALVES . FITTINGS . PIPE PLUMBING AND HEATING

GENERAL OFFICES: 836 SOUTH MICHIGAN AVE., CHICAGO 5

# Here's the fireplace form that YNII designed... for a better fireplace at lowest cost

You-and thousands of other architects and builders-set the specifications for this Benefire Fireplace Unit! And Bennett has built it exactly the way you want itto save time, construction costs and assure a perfect, smokefree fireplace every time. Simplified, standardized—this modern recirculating unit includes scientifically designed firebox, throat, damper, downdraft shelf, heating chambers and smoke dome-all combined into one fool-proof unit! Guaranteed not to smoke.

#### Lays Up Faster . . . Cheaper

The Benefire form places no restrictions upon exterior fireplace design-lays up easily with standard brick, with no costly cutting or fitting. Heavy boiler plate construction, with graduated weights for even heat distribution. All-around sealing flange holds insulation securely-eliminates mortar joint. 6 sizes available . . .

See your BENNETT representative ... He'll give you all the facts and figures you need on Benefire-and the complete BENNETT line of dampers, grilles, grates, cleanouts, ash dumps, etc., designed to build a better fireplace. See him soon-or write for catalog.

Write Dept. C for catalog



# new products

NOVEL BIRD REPELLENT AB85301

Nixalite is a device which prevents birds from alighting on building ledges, signs and gutters, defacing them, and lowering property values. Stainless steel prongs with sharp points, staggered and curved at various angles in a 180-degree arc are welded to a stainless steel base bar.

The device has 120 sharp points to each foot, which extend unward and outward on both sides, in a semi-circle. The 1/2-inch-wide base bar in which prongs are



embedded can be bent around any angular or curved object, with prongs extending. Birds cannot fly over and alight behind the prongs. Pictured installation is on a Davenport bank. Nixalite Company of America, Dept. AB, 115 W. Third St., Davenport, Iowa.

SLIDING DOORS

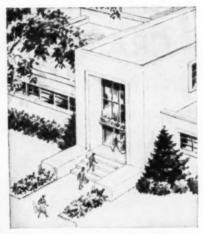
Improved line of sliding doors are banded on their long edges and bottom with a solid oak, frame-like molding. They are equipped with a single, circular pull which facilitates opening and closing.

These units, trademarked National SLI-D-O-O-Rs are made of non-warping 3/4 inch Novoply. They slide on overhead



hardware; no projecting separators or grooves are needed between the closet floor and the room. Complete unit contains doors, jambs, header and hardware. precision cut for tight, clean fit. National Door Co., Dept. AB, 163 Avenue A, Bayonne, N.J.

> FOR MORE INFORMATION USE COUPON, PAGE 176



TRANSPLANTING?



#### in mind

Build your plant to last . . . specify concrete reinforced with Clinton Welded Wire Fabric. For industrial buildings, commercial and residential construction, builders everywhere prefer this superior reinforcing fabric . . . here's why:

> Simple to Form and Shape, Clinton Welded Wire Fabric possesses the proper flexibility to make it easy to bend, form and shape right on the job. It is sufficiently rigid to hold its shape after forming.

> Easy to Handle and Place. Both the heavy and light gauges of Clinton Welded Wire Fabric flatten quickly and easily from the roll.

If you would like detailed information on Clinton Welded Wire Fabric and its many applications, write the office nearest you.

THE CALIFORNIA WIRE CLOTH CORPORATION, Oakland, Cal. THE COLORADO FUEL AND IRON CORPORATION, Denver, Colo. WICKWIRE SPENCER STEEL DIVISION, New York, New York



AMERICAN BUILDER



Summer Air Conditioners For combined heating and cooling with warm-air or hot-water systems. Fit any type construction.



Kitchen Disposer. Splitsection construction permits one-man installation. Adaptable to any kind of sink unit.



Cast-iron Radiators. Simple, graceful styling in many sizes. Lightweight construction. Easy and economical to install.

Cut out -



Radiant Baseboard. Can be installed before or after plastering and painting. Requires no change in structural plans.

# U.S. RADIATOR

# ... your complete source for home heating and cooling!

Radiant baseboards, boilers, furnaces, radiators, convectors, summer air conditioners - whatever vou're installing, you'll find United States Radiator Corporation has a unit to fit your needs exactly.

U. S. heating and cooling equipment is designed with an eve for minimum space and easy installation. Take the U. S. Super-Pak Steel Boiler shown at right, for example. Only 49" high and 22" in diameter, it's shipped preassembled and complete with oil burner, pump and all necessary controls and accessories. Workmen can install it quickly and place it anywhere: basement, utility room, kitchen or closet.

Maybe you're looking for the same kind of speed and easy handling on your jobs. If you need information on the Super-Pak or any other products shown, just check the box next to each product and fill in the coupon. You'll get your catalogs by return mail - no obligation, of course.



Cast-iron Boilers. For residential, commercial or industrial use. Automatic gas, oil or coal firing. Attractive jackets.



Water Heaters. Available in table-top or standard types, capacities from 20 to 82 gallons. Automatic gas and electric models.



Super-Pak Steel Boiler. Ideal for radiant baseboards, panels or radiators. Installs anywhere. Compact, low-priced.



Warm-air Furnaces. Complete line of horizontal, hi-boy or basement models for every use. Automatic gas, oil or coal firing.

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U. S. Boilers, Radiators, Heating Accessories . Pacific Boilers . Cyclotherm Steam Generators . Metal Products . Drayer-Hanson Air Conditioning and Commercial Refrigeration

# new products

#### MASONRY BONDING AGENT AB85304

A method of resurfacing porous masonry surfaces, at the same time combatting all degrees of moisture control problems, is



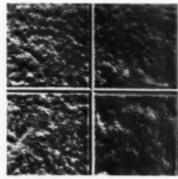
provided by a new "double-waterproofed" formula called "Bondex." Each particle of the bonding agents, which penetrate into the pores of the wall surface, is treated with a special waterproofer, Additional waterproofing agents and other ingragents for highest effectiveness.

The formula is being used in the manufacture of cement paint, for dampness control problems, and in a heavy duty product for control of serious moisture difficulties, where resurfacing, scaling and patching of porous masonry surfaces are indicated. The illustration shows a standard concrete block floating in water after being treated with the heavy duty scaler, The Reardon Co., Dept. AB, 7501 Page Blyd., St. Louis, Mo.

#### TILE WALL BOARD AB85315

Colorful Tileboard in scored, unscored or streamline patterns is available with hard, glossy or leatherwood finishes for interior wall covering. The hard finish is furnished in white and eight other colors with white or black scoring; the glossy finish comes in seven colors with all gray score; the leatherwood (illustrated), in green, blue and cocoa finishes. The latter has a mottled, simulated leather pattern, and is effective in dens and recreation rooms.

This wall board is available in 4x4, 4x6 and 4x8 sizes, except in leatherwood, made only in 4x8. A two-inch cap and four-inch base are made in four-foot

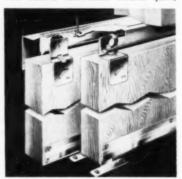


lengths of \$\frac{5}{10}\$-inch thickness in black or white with a lasting high-gloss surface. Tileboard Corp., Dept. AB, 2550 Atlantic Ave., Brooklyn, N.Y.

#### SLIDING DOOR HARDWARE AB85323

New Leigh sliding door hardware offers the builder a low cost line for two, three and four by-passing door installations, using %1-inch or 1%-inch-thick doors, Doors may be hung and adjusted from the outside. Once adjusted to fit the opening, a special Lok-Tab is set, preventing the doors from jumping the track

For builders' convenience, each set, with all parts required for one installation, is packed complete in a heavy tube. Parts are made of heavy gauge, zinc plated steel with solid brass door pulls. A fascia strip is available for trim at the top of the opening, cutting down installation time. A special plastic wheel with built-in lubrication assures quiet,



smooth operation. Leigh Building Products Division, Air Control Products, Inc., Dept. AB, Coopersville, Mich.

#### CEILING, WALL PANELS AB85324

Prefabricated, prefinished Korelock ceiling and wall panels are said to combine quick installation, economy, permanence and low maintenance. They are designed primarily for use in non-residential interiors. Panels are self-aligning and require no backing other than joists, studs or furring strips on masonry or partition walls,

The panels are constructed with an interlocking wood core between two sheets of Masonite Duolox, resulting in a sealed unit that has insulating properties, strength and rigidity under difficult moisture and temperature conditions. The



wood core provides a tongue and groove design for concealed fastening; tongues are pre-drilled for screw-type nails. Panels are available in 24x48 and 24x96-inch sizes. Marsh Wall Products, Inc., Dept. AB. Dover. Ohio.

#### GAS FIRED INCINERATOR ARRESTIL

With a capacity adequate for a family of six, this unit provides a disposal system for all combustible rubbish, including garbage. Gas fired, it has received AGA approval. It is recommended for continuous low-flame operation. Heat of the flame dehydrates the rubbish and fires it when dry.

Installation is stated to be simple. The unit may be hung on the chimney or mounted on a low stand on the basement floor, A flue draft of .03 inches is



sufficient. Skuttle Mfg. Co., Dept. AB, 4099 Beaufait Ave., Detroit 7, Mich.

# USE THIS COUPON FOR MORE INFORMATION ON NEW PRODUCTS AND CATALOGS IN THIS ISSUE Save Time—Just Insert Key Numbers and Mail To:

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When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder



# NOW

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Let us handle your shipments quickly, efficiently and economically

Order what you want... We will arrange delivery

You can now meet your complete lumber material needs at low cost through our new Dealer Purchasing department here at Colonial. We are offering mixed cars of West Coast forest products to meet your specifications, eliminating the need to purchase many full cars. By ordering from us EXACT quantities of what you need you will realize increased profits from less warehousing, smaller tie-ups of investment capital and increased protection against market fluctuations. At the same time we assure you products from quality mills loaded in minimum time. And our FITITE price lists still apply, even though you order them shipped in conjunction with other lumber products. We even assume the stopoff charge if you order 100 or more squares of FITITE SHAKES and 100 squares of undercoursing. We invite your further inquiry—call, write or wire—

FITITE SHAKES UNDERCOURSING NO. 1 CEDAR SHINGLES NO. 2 CEDAR SHINGLES RUSTEX TIGHT-KNOTTED CEDAR (1"x8" Paneling) PILGRIM TIGHT-KNOTTED CEDAR (1"x10" Bevel Siding) ARISTOCRAT TIGHT-KNOTTED CEDAR (11/2"x10" Bevel Siding) MAJESTIC TIGHT-KNOTTED CEDAR (11/2"x12" Bevel Siding) TOTEM HANDSPLIT SHAKES K.D. FLOORING AND SIDING FIR AND CEDAR FINISH **K.D. DIMENSION STOCK** 

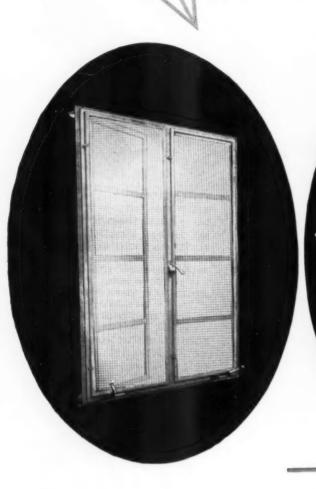
CEDAR BEVEL AND BUNGALOW SIDING



## COLONIAL CEDAR COMPANY, INC.

600 WEST NICKERSON STREET • SEATTLE 99, WASHINGTON • GARFIELD 5611

AUGUST 1953



CECO-STERLING aluminum residence casements

FULL SIZE SECTION of frame and ventilator

...what's

### for you at Ceco

Ceco adds a new window to its broadening line to better serve the building profession all over America . . .

now you have even greater choice from which to specify the "just right" window for a specific job.

And you can be sure of uniform quality too backed by Ceco's reputation . . . for Ceco windows are all engineered, fabricated, inspected and approved in Ceco's own plants.

Look at these special features which add up to a better product:

- Sections have a "" thick web ... heavier than in most aluminum casements.
- 2. Sections also have a full 1/4" thickness in the flanges.
- 3. Sections are a full 1" in depth.

There are special sections for picture windows used with 1" insulating glass. The glazing strips securing the glass do not have to be fastened with screws. Aluminum screens and storm windows are especially engineered for Ceco's new aluminum casements. So to be sure you have the exact window for an exact job; specify Ceco. Write for new window literature today.

#### CECO PRE-PLANNING CONSULTATION SERVICE

Ceco Product and Design Specialists will assist you in the application of Ceco building products at the pre-planning stage . . . Call your nearest Ceco office for overnight consultation service.



Offices, warehouses and fabricating plants in principal cities General Offices: 5601 W. 26th St., Chicago 50, Illinois



# MODULAR PRINCIPLES

### chapter 15 — prefabricators' problems

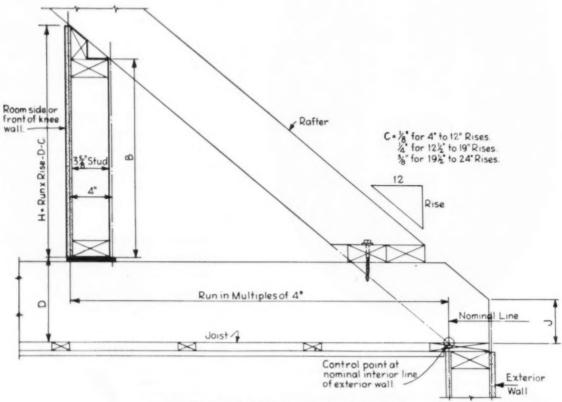
By Griffith S. Clark

Nearly every housing prefabricator has adopted platform or Western framing, the construction system which modular control benefits the most. Problems of this type of builder have been complicated by the fact that he has had to develop a unit with limited variations in one floor plan.

Modular control, readily adapted to any design, offers substantial savings to the prefabricator because its use allows changes to be made without interfering with procedure. Sizes and locations of windows can be altered easily, doors can be relocated quickly and section heights can be varied at will.

Offsite manufacture of nonrectangular sections is both quick and economical in a modular procedure. Since the interior nominal or modular line becomes the control point, the condition at the eaves can be determined with ease and then duplicated on the jig table for a simple, yet accurate, assembly.

Thus, one-and-one-half-story houses can be added promptly to the prefabricator's list of saleable units. Today it is common practice to supply unfinished attics. These can be completed most econom-



Detail A-special raised plate, with dropped plate effect

ically, however, at the time of erection.

Knee-wall heights are quickly determined because of the coordination in modular control procedure. To see how simply this can be done, study the accompanying detail sketches, keeping in mind that all dimensions start at the control point, which is the interior nominal or modular line.

In chapter 11 of this modular control series (Nov., 1952), a method of layout on the universal jig was shown without benefit of science or theory. Here a drafting board method of calculating will be discussed so that present scheduled members will arrive at the jig for quick assembly.

#### Special Raised Plate

The special raised plate sketched in detail A is actually a dropped plate condition. It is obtained by running the continuous plate on the top of the ceiling joist. The knee-wall is located in modular dimensions as shown. The control point is the intersection of the interior modular line and the bottom plane of the level cut of the common rafter. This plane is the same as that of the bottom of the ceiling joist.

To determine the height of the knee-wall, use the following formula:

#### H = run × rise - D - C

The run and rise are assigned, and in the example below are assumed to be a 4-foot 4-inch run and a rise of 8 inches in 12 inches. H equals height of the knee-wall. D equals depth of joist and thickness of subflooring. Assume joist stock to be 7½ inches deep and subflooring to be ¾ inch thick. C equals point of contact of the modular wall line at the lower chord of the rafter and is assigned in ½-inch increments as shown for various pitches.

By transposing to decimals of a foot, the 4-foot 4-inch run becomes 4.3333 and the 8-inch pitch is .6667. Therefore:

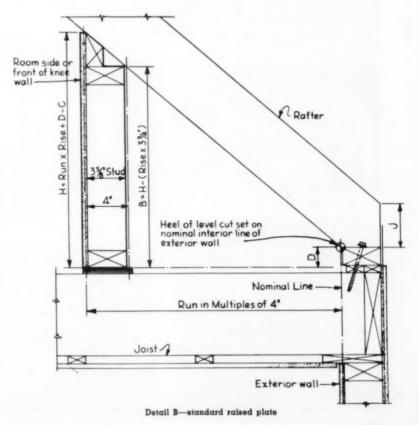
H = 4.3333 × .6667 = 2.8890 - D - C Converting this decimal back to feet and inches leaves 2 feet 105% inches. Subtracting the D dimension, or 81/4 inches, leaves 2 feet 23/4 inches. Subtracting the C dimension of 1/8 inch leaves 2 feet 21/4 inches as the total over-all height of knee-wall, including the cant strip under the rafters. Height of the cant strip will be equal to the inches of rise in a run of 33/4 inches Referring to the Wilson Rafter Tables (chapter 13, Jan., 1953) under the total rise in inches column and in the line for an 8-inch rise, we find 10.7. Multiplying this by the 334-inch run, or 3.75 when converted to decimals. the total becomes 40.9. Transposing in column E of the rafter tables reveals that 21/2 inches is the height of the cant strip.

To prepare the various members for assembly, set the radial saw to "rip" position, then set its horizontal vernier to 33 degrees 41 minutes as determined by a reference to the rafter tables in the saw set column for column rafters. At this setting, rip the 2x4 cant strip 2½ inches to long point. Since the over-all height was 2 feet 2¼ inches, deduct this 2½ inches to get the height of the knee-wall proper including the two plates. This height will be 1 foot 11¾ inches. Subtract the thickness of the plates (15% inches each, or 3¼ inches) and the remaining 1 foot 3½ inches is the stud length.

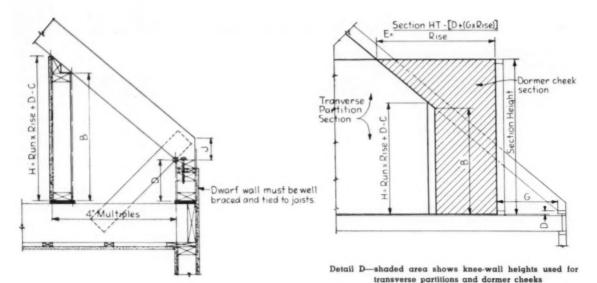
#### Standard Raised Plate

Detail B shows a standard raised plate. It was prepared for a pre-fabricated roof panel using two 1x2 kick plates under the 2x4 heel plate of the panel. Plywood 3% inch thick was used here as underlayment, and the finished floor (not shown) was made of panels of 34-inch flooring to which 3%-inch plywood had been stapled.

In any event, the D dimension represents the distance from the in-



AUGUST 1953



Detail C-raised plate on dwarf wall

tersection of the interior modular line, the level cut of the rafter and the top of the subfloor. In this instance, D equals 15% inches plus 34 inch minus 3% inch, or 2 inches.

Assuming, as in detail A, that the run would be 4 feet 4 inches and the rise 8 inches in 12, the formula to determine the length of B (section height minus the cant strip) is:

B = H - (Rise × 3 3/4 inches)

The formula for the section height in this condition is:

Section height becomes 3 feet 0½ inches. Deduct the predetermined height of the cant strip (2½ inches) and thickness of the plates (3¼ inches) to get the correct stud length, which is 2 feet 6¼ inches.

#### Raised plate on dwarf wall

Detail C shows the raised plate on the dwarf wall. This condition is used frequently where pitches are reduced in the rear of the building to get more available headroom. The D dimension still represents the distance between the control points as outlined in B. The height of the dwarf wall has been added.

#### Dormer cheeks

One of the most difficult sections to prefabricate is the dormer cheek, as sketched in detail D. After kneewall heights have been determined, it is possible to detail every dimension of this complex section so that it is readily available for assembly.

The shaded area in detail D, showing knee-wall heights used for transverse partitions and dormer cheeks, outlines this type of section.

For an example, assume the pitch is 6 inches in 12, the section height is 7 feet 6 inches, the knee-wall is located 5 feet from the interior modular control line (run), the G dimension is 2 feet 4 inches and D dimension is 2 inches.

To determine the section height:  

$$H = \text{run} \times \text{rise} + D - C$$
  
 $H = 5' \times .5 = 2.500 = 2'6'' + 2'' - \frac{1}{9}''$   
 $H = 2' 7 \frac{1}{9}''$ 

To determine the interior height of the knee-wall without the cant strip:

$$B = H - (Rise \times 3\frac{3}{4}")$$
  
 $B = 2'7\frac{1}{6}" - 1\frac{7}{6}"$   
 $B = 2'6"$ 

To determine E, the distance

along the top face of the dormer cheek from the inner section of the lower chord of the rafter to the dormer face:

$$E = \frac{\text{section height} - [D + G \times \text{rise}]}{\text{rise}}$$

$$E = \frac{7.5 - [.1667 \times (2.333 \times .5)]}{\text{rise}}$$

$$E = \frac{5.1667}{.5} = 10.3334$$

$$E = 10'4''$$

This detail is presented to show the simplicity of design and preparatory detail to expedite this procedure. Until control points were developed, it was impracticable to attempt this cutting list and expect it to fit. The area involved and the time to lay out these members on a horizontal plane were prohibitive in many instances. Now these members can be detailed on the drafting board and the angles for cuts assigned—a major contribution to prefabricators.

NEXT MONTH'S ARTICLE will describe the introduction of modular control on a big scale to Indiana by the ABC Construction Corp.

# the Stout Institute learns about MODULAR METHODS

GRIFFITH S. CLARK of the Homosote Company spent several days last spring on the Stout campus explaining modular principles and how they can be applied to the American Builder plan No. AB176 designed by Walter T. Anicka, architect.

The first day was spent on modular details with emphasis on subassemblies. Students worked from a scaled outlined plan. Two sections were developed by the carpentry class.

Scheduling and cutting were covered the second day. The jig table and saw table top were marked according to Clark's directions. The third day students were assigned to various jobs. Before the end of the two-hour class period, two sections were assembled and ready for erection.

Students, local architects, reporters and contractors who attended the meetings were impressed with the many advantages offered by modular methods. The current carpentry project at Stout, Anicka's three-bedroom home, will be finished according to modular principles.

K. T. Olsen heads the carpentry department at the Stout Institute, Menomonie, Wisconsin. It was through his efforts that the modular principles of construction were introduced as part of the construction course,



Griffith Clark shows correlation of plan and jig table



Scoring jig table



Student nailing subassembly



Sawing with saw table jig



Nailing sheathing to framed section



Face-nailing wall section on jig table

# IDEA of the MONTH

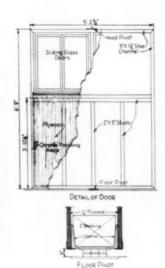


Photos courtesy The Mosaic Tile Company

### install a revolving door-bar to the outdoor living room



On kitchen side, bar provides handy place to serve breakfasts or snacks



Here is a kitchen-patio feature which should appeal to women. It is a door-bar that revolves on pivots so the bar can be loaded with food in the kitchen and turned around patio-side for serving. Turned kitchen-side, the bar provides a place to serve breakfast or snacks. Beneath the mahogany serving counter of this bar are two shelves concealed by tambour doors. Windows in the door are sliding aluminum sash. Side of door opposite the bar-side is flush.

—From the home of Thomas B. Jordan, West Coast Manager, The Mosaic Tile Company

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Ripping Rig.



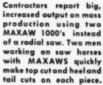
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MAKE	BLADE DIA.	WEIGHT	CUT AT 45°	*PRICE
MAXAW 1000 Saw A Saw B Saw C		22 lbs. 31-1/4 lbs. 24 lbs. 35 lbs.		\$175.00 185.00 185.00 190.00

mpetitive prices quoted as of Jan. 1, 1953. Saws listed as A, B, are those made by leading manufacturers of industrial saws.



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# Illinois aims at **SLUM PREVENTION**

By John F. McCarthy
Attorney at Law



Chicago and Illinois are attempting a new and different approach to the problem of slums. The fundamental idea behind this program is slum prevention.

Heretofore, the attack has been on existing conditions. Usually a small part of a blighted area was demolished and new structures were erected. Often this was public housing. Sometimes, as in Baltimore, existing structures were rehabilitated. At the same time, other neighborhoods were becoming slums faster than existing blight was being cured. The net result has been a substantial loss to the forces of deterioration and decline. This is a program of too little, too late.

Chicago thus determined that a substantial part of its effort against slums must be directed toward the conservation of older neighborhoods which were declining but which had not yet retrogressed into blighted areas. The same conditions exist, and the same reasoning applies, in any large urban community.

The first step in Chicago's determination to conserve existing neighborhoods has been to obtain necessary enabling acts from the Legislature of the State of Illinois. In this connection, at this writing, an interesting bill is pending and progressing toward passage in the General Assembly. It is believed that no other state or city has attempted legislation of this kind.

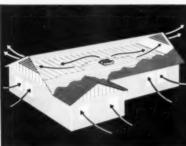
The proposed statute is known as the Urban Community Conservation Act, It provides for the appointment of a city-wide Conservation Board of five members. Each member must be experienced in real estate, building, finance or related endeavors.

Under the proposed Act, the Board has power to designate socalled "Conservation Areas." Such an area is defined as a section of not less than 160 acres in which more than one-half of the structures are residential in character and of an average age of 35 years or more. According to the definition, the section must not be a slum or blighted area, but one which may become such by reason of deterioration, illegal use or overcrowding of individual structures. deleterious use or layout of land or lack of community planning or facilities. The Board has the right to appoint, for each conservation area, a so-called "Conservation Community Council." The Council is composed of from 9 to 15 residents of the area, the majority of whom must be owners of real property.

The pending legislation authorizes the Board to adopt and execute an elaborate plan for the conservation of a particular area. The plan may make provision for land uses: vacation or alteration of streets and alleys; community facilities; zoning and building restrictions; demolition, conversion or construction of buildings; standards of maintenance and financing. The Board has the power to acquire property by purchase or condemnation and to hold, improve, sell. lease or exchange the same. No property may be held by the Board for more than five years. Appropriate provisions require the Board to manage properties through private real estate management firms. to rehabilitate properties through private contractors and to improve only privately owned land, These,

(Continued on page 187)





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#### McCarthy

(Continued from page 186) it is thought, guard against the Board's becoming another large public-housing venture.

There are many conceivable approaches to the problem of conservation of existing neighborhoods. Many, unlike Chicago's present effort, may not involve legislation. boards, public powers and public monies. For the moment, in any event. Chicago's effort is based on the legal premise that if the power exists to use public funds and take private property to eradicate existing slums, the same power must exist to prevent older neighborhoods from declining into blighted neighborhoods.

The Department of Commerce estimates that expenditures for residential repairs and maintenance in 1951 came to \$2.95 billion, and that the 1952 figure will run over \$3 billion. Residential alterations came to \$1.04 hillion

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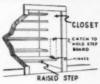
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Suggested by George Haggerty 908 Welff Denver, Colo. He receives a Tufboy.

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#### HOW TO CUT GLASS SIMPLY



Use a flat surface, such as a kitchen table. Make the correct measurements. Make one cut only, using a good glass cutter lubricated with any type fine oil. Place a pencil or other small round object under the cut. Press firmly down on both sides of the glass. You get a clean even break.

Suggested by Frank U. Smith Camden 3, N. J. He receives a Tufboy. 

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# here's an inexpensive week-end cabin for year-round living



Rustic appearance with native materials

This week-end cabin has all the conveniences of a city home constructed of rough native materials. Builder Donald Cederlund of Grand Rapids, Michigan, found that using native material reduced labor costs.

The cabin is built on a floating slab and has an exterior of cedar logs splined together. The logs were milled to produce a rabbet for the spline and one side flat. The flat side was turned to the interior and resembles "V" groove paneling.



Corner of window wall has storm unit set as a fixed pane. Eight operating sash are included in the installation



Kitchen has apartment-type units with two additional base cabinets

Roof rafters are one-piece tamarack logs. The window wall of the cabin utilizes storm windows set as the fixed panes and Andersen Flexivent units as operating sash. All other windows are the same Andersen units.

The interior of the cabin has a 13x24-foot combination living-kitchen area. The kitchen can be closed from view with Ratox doors. Included in the living-kitchen area is a wood-burning fireplace, heating plant, living and dining space. Directly in back of the kitchen is the bath which includes a shower, lavatory, toilet, water heater and washing machine. Flanking both sides of the bath are bunk rooms.

The heating unit is a counterflow oil-fired furnace without the usual ductwork. The furnace is raised 16 inches above the floor. A plenum

Cost Breakdown		
Site preparation	\$	50
Slab		240
Framing material and Labor	2,	000
Windows and Millwork		580
Plumbing	1	725
Electricity		410
Labor		500
Fireplace		300
Flooring		160
Kitchen units		625
Heating		500
Painting		225
Roof		155
Hardware		70
Overhead		200
Profit		700
Total	\$7,	440



chamber with one large grille was placed below the unit. The warm air passes from this one register at the floor level. The cold air return was placed in a soffit above the furnace. To facilitate the transfer of heat throughout the cabin, louvered doors were used between rooms.

The kitchen is a combination of Hotpoint's 5-foot apartment kitchen units and two base cabinets.

#### BRAND NAME PRODUCTS USED

Andersen Flexivent windows
Bendix washer
Celotex insulation
Heatilator fireplace unit
Hotpoint kitchen cabinets, range,
refrigerator
Kentile asphalt tile
Lightolier electric lighting fixtures
Perfection furnace
Pratt and Lambert paint
Ratox folding doors
Rheem hot water heater
Richmond plumbing fixtures
Ruberoid built-up roof
Schlage hardware

#### college sponsors class in home building construction

Pasadena City College, Department of Engineering and Technology, operates a two-year course in building construction. The course is partially subsidized by the California State Department of Vocational Education, while an advisory committee, composed of members of the Contractors' Association and officials of the local Carpenters'



Standing before the Pasadena City College 1953 Model House (l. to r.): Alan E. Brockbank, NAHR housing rehabilitation committee chairman: Dr. Wm. B. Langsdorf (on step), Pasadena City College principal: Fritz B. Burns. Los Angeles builder: K. Sande Senness, president, Home Builders Institute of Los Angeles; and Dr. S. F. McComb, superintendent, Pasadena Board of Education

Union, approve and guide the activities of the class. The specific objective is to provide the students with adequate preparation in order to get employment in the building trades.

The course is run entirely by students under a superintendent supplied by the college, and is carried on close to a construction job. The class meets four hours daily. with three hours devoted to actual construction on the job and one hour to study of technical information related to building trades.

Upon completion, the model home is opened to the public daily for a period of four weeks. The Board of Education advertises for sealed bids which are opened in the board room on a pre-arranged date. The highest bidder is awarded the model home one week later. The model (Continued on page 190)

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#### class in home building

(Continued from page 189)

home for 1952 was purchased for \$5,950. This year's home contains 1,044 square feet of space, and includes a living room, dinette, kitchen, bath and two bedrooms, with hardwood paneling in several rooms. The house is supplied throughout with the products of well known building material equipment manufacturers.

After its sale, the model home is moved to its permanent site on the purchaser's lot, at a cost of approximately \$500. An additional expense of \$500 is estimated for preparing the foundation and connecting the gas, electric and water systems.

#### asphalt tile color chart

A color classification chart on asphalt tile to aid in clarifying the color designations of current products of eleven different tile manufacturers has been made available.

It lists 27 colors, representing the complete line of each manufacturer in the A, B, C and D color groups. Designations of the following makes of tile are included: Armstrong, Azrock, Congoleum, B. F. Goodrich, Hachmeister, Johns-Manville, Kentile, Mastic, Moultile, Sloane and Tile-Tex.

Single copies of the chart may be obtained by writing to the Asphalt Tile Institute, 101 Park Ave., New York 17, N.Y.

# application and finishing of redwood siding

Details of the best methods of applying and finishing redwood siding are available to all in a recently published data sheet made available by the California Redwood Association. The new data sheet. No. 3A4-1, explains the simple precautions needed to give the most effective results to an architect or builder when installing and finishing redwood siding. It includes instructions on handling the siding before installation, structural precautions to be taken in applying it and information on exterior finishing. Details on nailing the various redwood lumber patterns are also described. Single copies of the data sheet may be obtained from the California Redwood Association, Dept. AB. 576 Sacramento Street, San Francisco 11, California.



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Plane cutter used in plane attachment. Will handle doors up to  $1\frac{13}{16}$ " in width. Leaves smooth, waveless surface that requires no sanding. Blows chips entirely free.



Router base and motor used with templet for cutting mortises. Provide perfect fit for round or square corner hinges. Accurate, micrometer depth adjustment.



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Lays tight against flat surfaces

Trowels over smoothly and easily

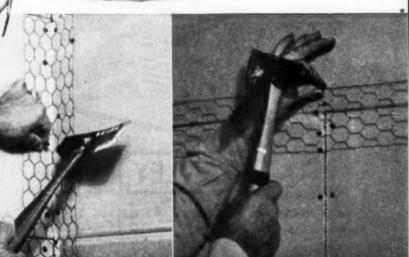
Provides a minimum of waste material

Galvanized to prevent rust streaks

Comes in easy to handle, easy to store 150 ft. rolls.



Easy to handle... Easy to store 150-foot rolls, 4", 5" 6", 12" and other widths. Ask your dealer for details.



# KEYCORNER

GALVANIZED PLASTER-REINFORCING

# ...ask for it by name

THE LOW-COST, MORE EFFICIENT PLASTER REINFORCING LATH FOR INSIDE PLASTER CORNERS, JOINTS AND CEILING-WALL JUNCTURES

PRE-FORMED FOR CORNERS Keycorner is pre-formed; manufactured to fit snugly into corners. It forms the corner shape by merely flexing the cut piece. Inside plastered wall corners and ceiling-wall junctures remain crack-resistant when reinforced with Keycorner.

LIES FLAT FOR STRIPPING Keycorner comes out of the roll flat and stays flat when applied on flat surfaces. It won't form the corner shape until you flex it. Keycorner used as stripping around windows, doors and other large openings provides lasting plaster beauty.

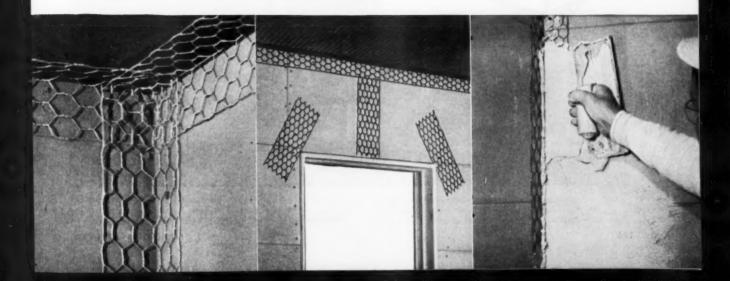
by the makers of KEYMESH and KEYBEAD GALVANIZED PLASTER-REINFORCING

#### **KEYSTONE STEEL & WIRE COMPANY**

Peoria 7, Illinois



KEYMESH • KEYCORNER • KEYBEAD • KEYSTONE NAILS • KEYSTONE WELDED WIRE FABRIC KEYSTONE TIE WIRE • KEYSTONE NON-CLIMBABLE FENCE • KEYSTONE ORNAMENTAL FENCE





Circular stone vault at left. Northwest wall (behind columns), oriented to afternoon sun. is protected by sheet-metal exterior sun-louvers which help reduce load on the air conditioning system. Wall at right is of demountable Robertson Q decking construction to permit future expansion

# this bank says strength, informality,

CASH WORK AREA

SAFE
DEROSIT
BOOTHS

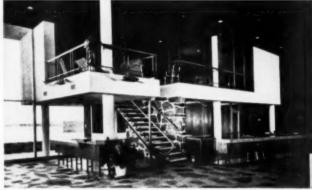
STORAGE

JAN
OFFICE
OFFICE
MACH
ROOM
OFFICE
OFFIC

Ground floor plan

This unique bank architecturally reflects the locale in which it is situated and the character of its patrons. It is the new Farmers and Stockmens Bank developed at Phoenix, Arizona, by Pereira & Luckman, Los Angeles architectsengineers.

The bank is located in the center of the Tovrea land and cattle company feeding pens, where more than 300,000 head of cattle were finished for market last year. The architects have notably achieved a dual objective: developing a building that physically reflects a sense of security



Steps leading to the mezzanine are of solid Douglas fir



View of main banking room. The random-laid stones which form the outdoor terrace are continued into banking room

### the Southwest

and also gives a feeling of the traditional informality of that region.

Highlights of the building include a circular vault, walled solidly with native stone, which is accessible from the main banking room but which juts out beyond the building proper; a glass-enclosed banking room; and use of rugged materials and coarsely textured wall surfaces.

The total building area is 7,267 square feet, with an additional 13,468 square feet in exterior paved terraces. Cost of the building was about \$112,000; the contractor was the Perry Brignell Construction Co.

Rough stones create the effect of massive solidity in the vault. Lobby of vault is lighted through an eggcrate grid





Traditional informality of the Southwest is reflected in the interior. Counters are of rough-sawn wood, floor is of native stone, and western brands are used decoratively on the wall



Covered passageway leads to office building of Tovrea Stockyards, where bank is located. Entire bank is placed in a raised terrace that is defined by a low stone wall

# Tight, insulated wall for air-



J. S. Norman, Jr., designer and project engineer, J. S. Norman Building Corporation, Houston, Texas, builders of the completely air-conditioned Coleman Trend Home.

This is the experience of the J. S. Norman Building Corporation, builders of Houston's first "medium-priced" air-conditioned homes. Let J. S. Norman, Jr., project engineer, tell you about it.

"Building a completely air-conditioned home meant that we would have to revise some of our building practices.

"For one thing, insulation became an essential. It was no longer exclusively a matter of comfort, but of economy as well.

"Without insulation you get a high heat gain. That means more costly, higher capacity air conditioning equipment. Low heat gain (made possible with insulation) means less costly equipment, better performance.

"Here's a good example. By using Bildrite Sheathing, we were able to use an air conditioner one size smaller than originally planned and cut our cost considerably.

"The pictures on the opposite page show other

reasons why we decided to use the Insulite Shingle-Backer System (Bildrite Sheathing and Shingle-Backer) instead of a blanket insulation and no sheathing.

"Incidentally, even though we upgraded the quality of our construction with this system, our costs were less.

"Cedar shakes over Bildrite and Shingle-Backer came to \$35 more than double-course wood shingles, furring strips, felt, blanket insulation and no sheathing. To offset this we switched from plywood to Insulite's Primed Graylite for soffit liners and saved \$42! We now have a far better built home, yet it actually cost us \$7 less!"

J. S. Norman, Jr.

#### **Build** and insulate

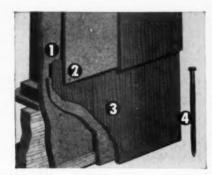
BREULITE, BILDRITE AND GRAYLITE ARE REG. T.M., U.S. PAT. OFF.

#### Air-Conditioned COLEMAN TREND HOME

Builder: J. S. Norman Building Corp., Houston. Location: Ridgecrest Addition—Houston, Texas. Designer: J. S. Norman, Jr., engineer. Insulation: Bildrite Sheathing, Shingle-Backer.



# is a must conditioned home!



This tight, wind and weather-proofed wall reduces heat gain eco-nomically. Has insulation value comparable to a 1-inch blanket under doublecourse wood shingles and twice that of wood sheathing under double-course wood shingles and felt. (1) Bildrite Sheathing. (2) Shingle-Backer (3) Outercourse shingles (4) Grooved nail.



Bildrite Sheathing goes up faster, easier. Cuts application time as much as 43%. 4-ft. sheets have twice the bracing strength of horizontal wood sheathing thus save corner-bracing.
Waterproofed throughout with asphalt. Eliminates need for building paper. Gives full coverage. Practically eliminates cutting and matching waste.



Insulite Shingle-Backer speeds Insulite Shingle-Backer speeds completions. Adds extra insulation value to sidewall. Developed by Insulite, the handy panels apply far faster and easier than wood under-course shingles . . . cut application time in half. Produce deep, modern shadow lines. Eliminate waste. Waterproofed throughout with asphalt.

with double-duty INSULITE Made of hardy Northern wood

Build better, yet save up to \$120 per home. Free literature gives the facts. Contains "case histories" of other builders and how they save up to \$120 per home with Insulite. Cost-comparison folder helps you figure your own savings. Write Insulite, Minneapolis 2, Minnesota.

INSULITE DIVISION, Minnesota and Ontario Paper Company Minneapolis 2, Minnesota



#### Latest "Trade Secrets" Success!



48,000 pounding feet failed to mar this floor

# -that's the beauty of Higgins Block*



After the first three exhibit days, visitors to the LIFE-NAHB "Trade Secrets" (House built by L. P. Smith in New Orleans found it hard to believe that the immaculate, gleaming floors of richly grained Higgins Block had already been walked on by 24,000 people—equal to years of average wear! Visitors were further impressed by this list of Higgins advantages:

#### * SPECIFICATIONS:

9" x 9" net face hardwood blocks easy to install

3-ply cross-grain construction—when properly installed will not warp, buckle, cup or crack

Selected oak face—comes with final finish

Pressure bonded with marine-type glue—water-repellant, climate-proof

Deep-impregnated with famous new "Penta"—rot-proof, termite-proof

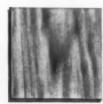
Grooved back anchors into adhesive —quiet and comfortable

Can be laid directly on concrete slab

--without special preparation

Blocks fit flush—without large, visible V-grooves

# Higgins Bonded HARDWOOD BLOCK FLOORING INC. THE WORLD-FAMOUS BOAT BUILDERS



Address......Zone.....State......

# No. G-45 fixtures are part of store remodeling

In the process of remodeling old buildings into new and attractive stores, the interior display cases are considered a part of the general renovating program, and, as a rule, are designed to conform with the general architectural pattern of the store.

The detail drawings on the opposite page show some of the display tables used in furnishing this ladies' specialty shop. The tables are used for the display of small items such as jewelry and accessories. In addition to their display value, they also complement the architecture of the room.

All tables are of walnut, which is left in its natural finish. Bottom and back of the jewelry case are made of one piece with intersection turned to a three-inch radius. Top ends, and opposite sides are made of polished plate routed into wood bottom and back. The inside of the wood portion of the case is finished in lacquer.

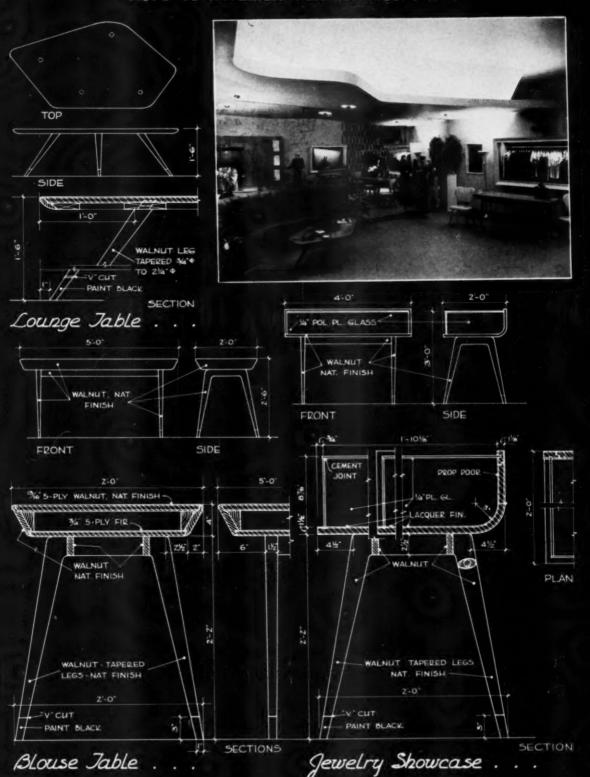
This store is of the intimate type, having a limited amount of floor area for display. Additional depth is obtained through the use of a mirrored wall at the rear. The use of dropped ceilings of irregular contours along the perimeter walls serves to create further the illusion of greater depth and height within the store. The store is illuminated with concealed fluorescent light tubes.

### AMERICAN BUILDER'S STORE FRONT DETAILS

Detailed by K. Roderick O'Neal, A.I.A. for American Builder

Designed by Sidney C. Finek, A.I.A., Chicago, Ill.

#### NO. 6-46 INTERIOR FURNISHINGS





AS COMPARED WITH OUTMODED WOOD SHEATHING AND BUILDING PAPER

- Seals home against heat, cold, wind and dust.
- Shuts out rain. It is asphalt impregnated.
- ❸ Goes up easily reduces labor costs.
- Strengthens bracing strength of the structure.

Fir-Tex Asphalt Impregnated Insulating Sheathing is available at most lumber supply dealers. Ask architects to specify, builders to use Fir-Tex Sheathing. Sell building board plus insulation at the cost of insulation alone. Enjoy greater volume, greater profits with Fir-Tex.

All Fir-Tex Insulating Board products are termite proof.







#### INTERIOR FINISH

For adding that extra room within the home, for finishing the attit or basement, for all remodeling jobs-recommend Fir-Tex Color Panels and Tile. It insulates as it builds; it easy to use, Fits it ideally with the spectacular present-day "do it yourself" trend.

#### BACKER BOARD

Fir-Tex Bocker Board eliminates the slaw, time consuming job of undercourse shingling and building paper application. It additions to be undercourse, cuts building costs, gives a smoother, neater appearance. Adds beauty with uniform, deep shadow lines...and its shadow lines...and its page 100 per 100

## No. D-104 cabinet used as room separator

This free-standing cabinet is one of the features of the living area in a new home in Glenview. Illinois.

The living area of the house is a large open space, measuring 24 feet by 25 feet at the extreme points, with beams and sheathing left exposed in the ceiling. It was the purpose of the designer to retain this open effect throughout the entire area, and to eliminate partitions as room dividers where possible. This goal was achieved through the use of the free-standing closet.

This cabinet, which is seven feet six inches high, leaves about two feet of clear area between its roof and the underside of the ceiling beams. It is placed, as the plan indicates, to form an entry first of all, then a passage at right to kitchen, living room at left, and dining room beyond the entry. In this manner a full complement of rooms is provided, but with no walls.

The cabinet is arranged to serve the entry and dining room. The entry side contains a two-foot-deep closet with sliding doors across the front. Doors slide on overhead hangers. Adjoining the closet, on the same side, are two cupboards, both used for the storage of card tables, folding chairs, golf clubs, etc. The dining room side of the cabinet is divided into four units; the sideboard space, which is the most prominent, contains a full size mirror on the back wall. The area adjoining is used for glass and dish storage, with sliding trays for linens and shelves for silver storage below.

Interior and perimeter partitions of the cabinet are constructed of 2x2 and 2x4-inch framing members with gypsum board for facing. Exterior walls of the cabinet, including doors, are Philipine mahogony plywood and trim.

### AMERICAN BUILDER'S BETTER DETAIL PLATE

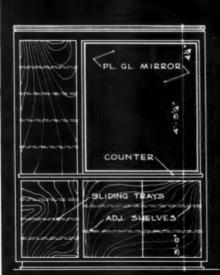
Designed by Arthur V. Hansen

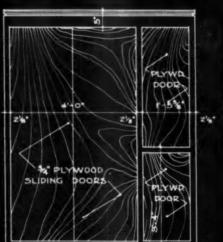
Detailed by K. Roderick O'Neal, A.I.A. for American Builder





Plan . .

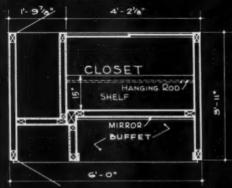






Elevations . .





Plan . .

NO. D 104
FREE STANDING CABINET



# lumber dealer's plan helps small builders when land COSTS SOAR

The two bedroom, \$9.400 model designed by the lumber dealer has three basic exterior variations. Individuality is obtained by changing roof lines, front porch, garage doors and using different combinations of exterior materials

A LUBBOCK, TEXAS lumber dealer stepped in when towering land costs were forcing small builders out of business and seriously affecting housing for the city's fast growing population. The concern, S. S. Forrest Lumber Company, began an unprecedented program that provided both new housing and business for the small builder.

They purchased raw land and developed it for subdivision use. Plans were drawn up for the houses and VA appraisals and commitments were secured. Then the job was given to selected small builders.

Pre-arrangements were simple. The lumber dealer made a credit investigation of builders who wished to cooperate in the project. Workmanship of the builders was also scrutinized. The lumber concern went so far as to interview owners of houses previously built by those wishing to cooperate.

When preliminary credit and professional ability was approved, builders were able to obtain a site and house plan in the subdivision. The builder did not have to purchase the land and lumber. Materials purchased from the Forrest Lumber Company were carried until the home was completed. The builder only had to meet sub-contractors' bills and weekly payrolls. Forrest arranged interim financing for the small builder if needed.

After the house was completed, the lumber dealer arranged for its sale and the money was turned over to the builder. Profits from this arrangement averaged 7 per cent. The profit figure, however, was determined by the efficiency of the builder's operation. The builder could also take advantage of a complete accounting service offered by the lumber dealer.

This plan enabled small operators to build four to eight houses a year against one or two they might have completed. As many as 22 crews were in the project at one time. Only when sales far exceeded starts did the lumber firm put on their own crews. When sales and starts equalized the lumber dealer's crews were pulled out. In the first year, 250 houses were built.

Cost breakdown was:

Cost Dicardown was:	
Material	\$3,500
Lot Cost	1,200
Plumbing	800
Labor	 1,500
Concrete	 550
Electrical	 250
Painting	
Permits, Plans, Eng., Etc.	 . 150
Profit	 . 800
TOTAL	\$9,250

Sales price was \$9,250.

#### BRAND NAMES PRODUCTS USED

Benjamin Moore paint
Congoleum-Nairn linoleum
Hirst wall heater
Invincible shingles
Johns-Manville asbestos siding
Kitchen-Aire exhaust fan
Kitchen Maid kitchen cabinets
Mengel doors
Mission hot water heater
Schlage hardware
United States Gypsum wallboard
Universal-Rundle plumbing fixtures





Model with separate dining area cost \$10,500. Note methods used to achieve individuality



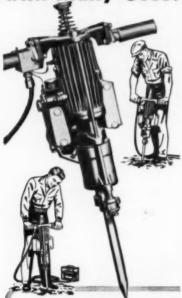


Least expensive design sold for \$9,250. Wainscoting, brick planter, material combinations and color varied exteriors of plan



AUGUST 1953

# A Profitable Tool with Many Uses!



### BARCO Gasoline HAMMER

- HERE'S why owners of the improved Barco Gasoline Hammer are enthusiastically acclaiming it as "A Profitable Tool With Many Uses!"
- Versatile! Use it for Pavement Breaking... Cutting... Digging... Rock Drilling... Frost Breaking... Rod Driving. Ideal for general utility, standby, and emergency service.
- One man operation. No compressor needed. Easy to take to any location.
- New ignition system—quick, easy starting.
- Quick disconnect at handle for battery cable. Thumb controlled switch.
- Powerful, rugged; up to 1550 strokes per minute.
- Economical! Low first cost, low operating expense, low maintenance expense. Quickly pays for itself.

ASK FOR A DEMONSTRATION—See for yourself—ask for our nearest distributor to give you a demonstration.

BARCO MFG. CO.

523J Hough St. Barrington, Illinois A Chicago Suburb





# novel and practical use of appeals to many home



FRONT ENTRANCE—Glass block panel combined with a brick planter which extends into interior hall creates an unusually attractive entranceway. During the day, glass block panel permits daylight to flood hallway. At night, light from the interior brightens entrance, gives panel a picture-like appearance. Interior planter divides hallway from the dining room.



FOR BATHROOMS—An exterior panel of glass block will admit daylight while protecting interior from outside view. Prevents chilly down-drafts over bathtub. Enhances as well as insulates the shower stall. Panels can be cleaned with a damp cloth. Their resistance to moisture and condensation damage reduces maintenance problems to a minimum.

# **GLASS BLOCK buyers**



IN KITCHENS-Three courses of glass block in the exterior walls flood work counters of this kitchen with daylight.



ON THE EXTERIOR-Glass block as a construction material blends well with brick and wood. In a kitchen wall, as here, permits daylight at the work counter.



IN BEDROOMS-A single row of 8-inch glass block provides an attractive border for this large dressing table mirror. In addition to enhancing the appearance of the mirror and the entire room, it brings daylight to the dressing table, increasing its appeal to women.



• Here's a new standard duty 1/2" drill you can really "bear down on." Its heavy-duty universal motor resists stalling. Its 2-position auxiliary handle permits extra leverage on the real tough jobs. Its exclusive rear handle adjusts horizontally or vertically so you can lean into the work . . . apply more pressure - at any angle - with a natural, less tiring grip. If you want, you can even remove the rear handle and concentrate your whole strength behind the drill body. Or, in tight spots and close quarters, you can dispense with both auxiliary and rear handles for extra compactness, extra convenience.

This new Porter-Cable 1/2" drill was designed for high efficiency drilling in intermittent applications. Features: Heavy, precision-ground Jacobs geartype chuck . . . double compound reduction gears . . . combination ball

radial and thrust bearings . . . lower handle cast integral with housing for greater strength. UL approved.

your Porter-Cable depler's ew 14" Drill \$29.95

Porter-Cable

Quality Electric Tools

Mail coupon for FREE **ELECTRIC** TOOL

CATALOG

PORTER-CABLE MACHINE CO.

1528 N. Salina St., Syracuse 8, N. Y.

(In Canada write: Strongridge, Ltd., London, Ont.)

Please send your complete catalog on electric drills, routers, saws, planes, etc. - also name of nearest dealer.

Address.

County_

Manufacturers of SPEEDMATIC and GUILD Electric Tools

you can save hundreds of dollars per house ... building basementless homes with ...

# CLAY PIPE HEATING DUCTS!

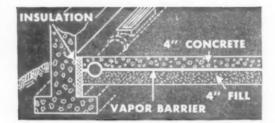
# here's proof!

LEADING MIDWEST



"We've used Vitrified Clay Pipe Heating Ducts in several groups of concrete

floor-slab homes since 1950," says a Midwest home builder. "I estimate that we have saved \$100 per house by using Clay Pipe Heating Ducts instead of conventional heat transmission systems. And hundreds of additional dollars were saved by eliminating costly basement construction."



# Here are some EXTRA advantages of Clay Pipe Heating Ducts reported by this builder:

- Clay Pipe holds its shape when the concrete for the floor-slab is poured over it. Other duct materials "squashed out" under the weight of the concrete.
- Only one pouring of concrete is needed. Other duct materials required a separate pouring just to anchor the ducts.
- A single pouring of concrete over Clay Pipe Heating Ducts required one-third less concrete than the two pourings necessary when other duct materials were used.

That's why this builder says: "For low-cost heating ducts that can be depended upon during construction and that will give generations of service in the completed home, I recommend Vitrified Clay Pipe."

#### NATIONAL CLAY PIPE MANUFACTURERS, INC.

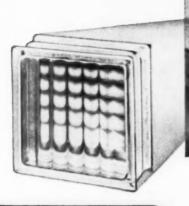
1520 18th St. N. W., Washington 6, D. C.
206 Connally Bldg., Atlanta 3, Ga.
100 N. LaSalle St., Rm. 2100, Chicago 2, Ill.
703 Ninth & Hill Bldg., Los Angeles 15, Calif.
311 High Long Bldg., 5 E. Long St., Columbus 15, Ohio-

ESSENTIAL · ECONOMICAL · EVERLASTING



# PC GLASS BLOCKS over Kitchen Counters

- mean a lighter, brighter kitchen
  - a more modern, salable house





roofer's felt panel height PC Asphalt Emulsion

SEE how the light streams in on this counter work surface through that long panel of PC Glass Blocks. That's a convenience every homemaker appreciates . . . one that will help to sell her on this house.

And it's an added feature that you can't afford to omit in the homes you build. More and more homeowners are becoming familiar with the advantages of PC Glass Blocks. They know that glass blocks have nothing to rust, rot or require frequent repainting or repair—that, because of their sealed-in dead-air insulating spaces, heat gain in summer, heat loss in winter, and unpleasant condensation are reduced. And glass block panels can be easily wiped clean with a damp cloth.

There are dozens of ways PC Glass Blocks can be used to give homes and other buildings greater appeal. For suggestions on where and how to install them just send in the convenient coupon.

### Pittsburgh Corning Corporation

PITTSBURGH 22, PA.

	Only	PC	Glass	Blocks
give	you	all	these	advantages

- KEY-LOCK MORTAR JOINT exclusive edge contour creates double wedge-shaped mortar joint—locks each block in place.
- DISTINCTIVE MARKINGS on top edge of functional black make pattern identification easy, assure proper setting.
- FINGER-FEEL RIDGES along top edge of functional blocks are an added guide to setting blocks correctly.
- PLASTIC BOND COATING with heavy grid application provides tight bond between glass and mortar.
- giass and morar.

  "CLEAN-EASY" FACE FINISH—special factory-applied coating protects block face from mortar and dirt. Gives neater installation. Available in certain styles.

Pittsburgh Corning Corporation
Dept. AO-83
One Gateway Center
Pittsburgh 22, Pa.
Please send me more information on PC Glass Blocks.
Name
Firm
Address
City Zone State

# You can get ideal light construction levels made by David White-



This low-priced, reliable David White Improved Light Construction Level No. 8020 is simple and easy to use. Telescope 10" long, 10 power. Graduated spirit level, 4½" dia, circle graduated in degrees in quadrants. Has leveling screws and clamp screws. Complete with instruction book, carrying case, plumb bob, hinged leg tripod, rod and target. List price, 200 000. and target. List price: 838.00°.



The David White Improved Light Construc-tion Level Transit No. 8022 is a low-priced, simple, complete combination instrument, Levels and plumbs from same set-up. Has same features of instruments costing \$100.00 or more, 2½° graduated spirit level. Ver-tical are 2½° graduated. Horizontal circle — 4½° graduated in degrees in quadrants, Base has 4 leveling screws and shifting center. Clamp and tangent screws for ver-tical are and horizontal circle. Complete with instruction book, carrying case, hinged tipod, plumb bob and rod with target. List Price: \$75,00*.

How many times have you wished for easyto-use, low-cost levels and transits? Instruments ideally suited to light or rough construction work - basement excavating, landscape grading, trenching, tiling, concrete work, laying out building lots, etc. Here's your answer. These instruments are fully guaranteed. Small contractors have successfully used them for years. Big contractors often supply their individual crews for onthe job service. See them at your nearest David White dealer or write direct for literature. DAVID WHITE



Court Street, Milwaukee 12, Wis. We offer complete, prompt repair service on all makes of instru-ments—levels, transits, theodolites, etc.

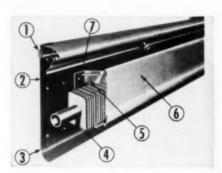
*Prices subject to change without notice.

#### new developments in baseboard heating



The Trane Company's new hot water baseboard convector is designed to eliminate wall streaking, has a continuous horizontal opening instead of grilles for air circulation, as well as a rubber seal against the wall. Reverse curve at base makes floor mopping easier

(1) Dirt seal prevents heatstain on the walls. (2) Onepiece back for easy installation. (3) Reverse curve at base replaces usual quarter round for easier housekeeping. (4) and (5) The fin-and-tube heating coil is suspended on hangers that permit free expansion with resulting fuel economy and silent operation. (6) Snapon front. (7) Free-swinging dampers are optional, can be snapped on later, are held by a damper spring



The Trane Company of La Crosse, Wisconsin, pioneer maker of heat transfer equipment, has introduced a new "hidden heat" baseboard convector for hot water heating.

Seven years in development, the new convector has been designed with the medium- and lower-priced home market in mind. Low-cost installation and easy stocking by wholesalers have been major considerations. These new units come packaged and completely assembled, including joiner pieces.

The one-piece back of the baseboard is sealed to the wall by a strip of sponge rubber, and is drilled with

mounting holes on 11/2-inch centers, permitting quick attachment to any stud spacing without drilling or sheet metal screws. The entire unit may be installed free-standing, or it may be recessed so that its face is only 11/2 inches from the wall. It may be set over carpeting, floor tile or linoleum.

#### Perim-a-Base for Warm Air

The Berger Furnace Manufacturing Co. of Pittsburgh is out with a warm air baseboard heating system known as Perim-a-Base. Similar in appearance to a standard wood baseboard, the Perim-a-Base panels are designed for use with either standard ductwork or with 4-inch basement pipes.

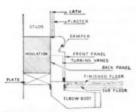
The design combines the principles of baseboard and perimeter heating, the panels being installed along the entire length of outer walls in a room. This placement of the panels makes cold air return unnecessary. Instead, the warm air which accumulates at the ceiling

level is returned to the heating unit through high wall or ceiling grilles. Berger claims this results in no drafts, uniform floor-to-ceiling temperature, lower fuel cost, greater system efficiency.

These baseboard panels do not have a hot surface. They can be painted or finished to blend with the decorating scheme of the room.

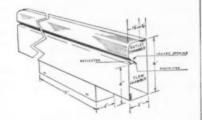


Perim-a-Base panels for warm air systems combine the principles of baseboard and perimeter heating

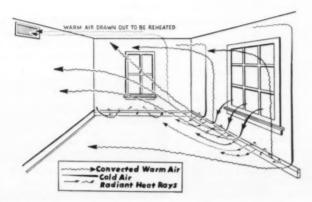


TYPICAL INSTALLATION

Flow pattern for the Perim-a-Base system



The baseboard protrudes two inches from the wall





14-gauge electrically welded frame, fins welded to jamb for quick installation and double contact with leak-proof watershed sill. A plus value incorporates a redesigned latch which assures positive operation under all conditions.

SASH

Also ask about the extra value in:

VENTO "THRIFTY" BASEMENT WINDOWS VENTO FORMED STEEL LINTELS (FOR BLOCK AND BRICK CONSTRUCTION) Vento "Champion" Burred Basement Windows Vento "Champion" Utility and Bern Windows Vento Thrifty Utility and Special Type Windows

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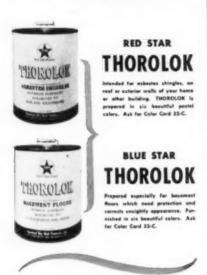
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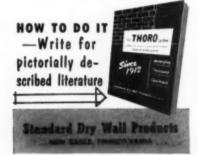


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### an installer looks at home air conditioning

Part II

By Lawrence H. Hirschbach*

*The author, vice president of Controlaire, Inc., Fort Lee, N. J., is recognized as a leading air conditioning contractor in his state. This article concludes an adaptation of his talk at an air conditioning panel session held during the New Jersey Home Builders Association convention. The first writeup appeared in the July, 1953, American Builder.

#### Conclusion

There are some other items, just as important as the air conditioning equipment itself, that enter into the picture.

#### Air Circulation-

No air conditioning system will operate properly without control of the air it circulates. At the Chicago convention of the American Society of Heating & Ventilating Engineers. a technical paper was read which stated that the same air flow could be used successfully for winter heating and summer air conditioning. This report has been misconstrued by many people. A further reading of the article uncovers this statement: "An increase in the amount of air being circulated during winter heating (as a result of using the same amount as employed in summer cooling)," etc.; in other words. it is the summer cooling air quantity that is the determining factor, and this air quantity is the basis for ductwork sizing and number of outlets in a given room.

Of just as much concern as getting the air to the room is the problem of how to diffuse it when it gets there. Baseboard supplies are no good at all for cooling. High sidewall supplies are reasonably satisfactory for cooling and, if diffusers with double-directional adjustable vanes are used, will work well. This same technical report, in discussing high side wall outlets, states:

Vertical temperature variations in the occupied zone during cooling were generally about 1 degree, whereas they ranged between 10 and 20 degrees during heating; vertical vane settings of the supply outlets had a great influence on air distribution during cooling, but only a small influence during heating, and horizontal vane settings of the supply outlets affected the



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air distribution during cooling but not during heating.

This leaves us with a requirement for both high and low wall outlets: one for cooling, one for heating. But that is an expensive way to do it and a nuisance to install. It leaves us with a high outlet on the wall just where Mrs. Homebuyer wants to hang a picture. We have two alternatives, either of which will produce excellent results. One is the narrow slot-type of floor register. placed adjacent to an outside wall. usually under a window: the other is the low outside wall diffusing type. With either of these, and this is important, the air diffuser must be designed so that air motion into the room is vertically upward, not horizontally outward. If properly designed, these diffusers will not interfere with or be adversely affected by draperies or furniture placement.

One further item on ductwork insulation: generally it is not necessary to insulate supply ductwork in the basement. If a crawl space is reasonably open to a full cellar area, it is not necessary there either. But any supply ductwork which will be subjected to outdoor air must be insulated. If not, the losses will be very high and, in summer, condensation will take place.

#### Water supply problem-

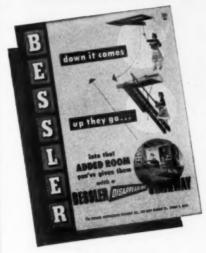
Let's get on to a most important subject—water. Heat that is extracted from the house in summer must be disposed of by some means. The cheapest and most effective way is by running city water through the refrigeration condenser, in the course of which its temperature is raised, and then wasting the water to the sewer.

Water supply, especially as the number of air conditioning installations increases, may present a problem. Pressure may drop sufficiently on hot days to interfere with equipment operation or, what is more likely, local ordinances may prevent the use of water for air conditioning.

On the other side of the picture is the matter of disposing of the water. Septic tanks or cesspools cannot be used. A storm sewer is excellent, a sanitary sewer is perfectly good, but municipalities that pay for sewage disposal on a metered basis will not long stand for this added cost.

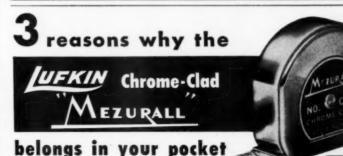
(Continued on page 214)

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MARKINGS

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Complete information can be supplied at your nearest United States Plywood or U. S.-Mengel showroom . . . or see your Weldwood lumber dealer.

Here, left, is a subtly beautiful wall of Honduras mahogany Plankweld which can be a traffic stopper in your model home, and a hard-selling feature in all your homes. Pre-finished Plankweld needs little or no upkeep and no frequent redecoration like ordinary wall surfaces.



This ad, in full color, will appear in magazines reaching a readership of over 15 million in September. All year long, home prospects see Weldwood advertising which promotes real wood for beautiful homes. You can cash in on this national acceptance.

#### Weldwood Products Add Quality





RIGHT, Weldwood doors in beautiful woods to match Weldwood wall panels add distinction to this room in a Scarsdale, N.Y. home. Architect: Russell Kilburn, Builder: Charles Herman Construction Company.

LEFT, New Weldwood product, Novoply, is fast becoming a builders' favorite. Here it is used for cabinets in the kitchen in the Larkwood development, East Northport, L. I. Builder was W. C. Hewitt, Jr.

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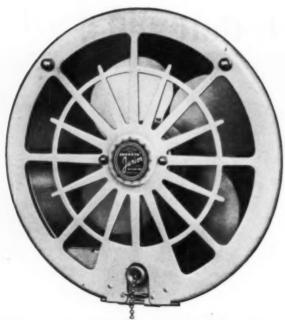
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Automatic shutter closes duct

Automatic shutter closes duct, when fan is not operating. Dependable Emerson-Electric motor equipped with special thrust bearing.

EMERSON EMPLIANCES ELECTRIC

(Continued from page 211)

Various means of reducing water consumption are available.

Two types of cooling towers are in common use. One, the atmospheric, depends entirely on a natural circulation of air through it to evaporate some of the water and cool the rest, which is then recirculated through the refrigeration condenser and back to the tower by means of a pump. These units must be located in a cleared opening, not obstructed by shrubs, foliage or buildings, so that air can circulate.

The second type, the mechanical draft tower, performs the same function, but a blower pulls air through. These towers may be located indoors with ductwork, or outdoors without it. My company is at present installing this type of tower in a 100-house project where the towers will be in a corner of the garage and their discharge will be through an opening in the garage wall. Mechanical draft towers are more expensive but are more efficient and present less of an installation problem. Since they merely replace the city water supply, no refrigeration piping connections are necessary.

Another water-saving device is the evaporative condenser. These differ from towers in that they extract heat directly from the hot refrigerant gases. They are efficient in operation but often present installation problems. Refrigeration discharge and suction piping must be run between the condenser and the refrigeration compressor. These lines cause a loss of cooling capacity and must be well insulated. They are potential sources of refrigerant leaks and, in order to install them, the hermeticallysealed refrigerating system must be opened. In some cases, this may void the manufacturer's guarantee.

A few manufacturers are offering a strictly air-cooled condenser. These have the same deficiencies as evaporative condensers, plus one more that is a serious drawback. The hotter it is outdoors, the greater the load on the cooling system, and the less cooling it can produce with an air-cooled condenser. Electric power consumption rises too, with this rise in temperature, and it is entirely possible that the refrigeration com-

(Continued on page 216)

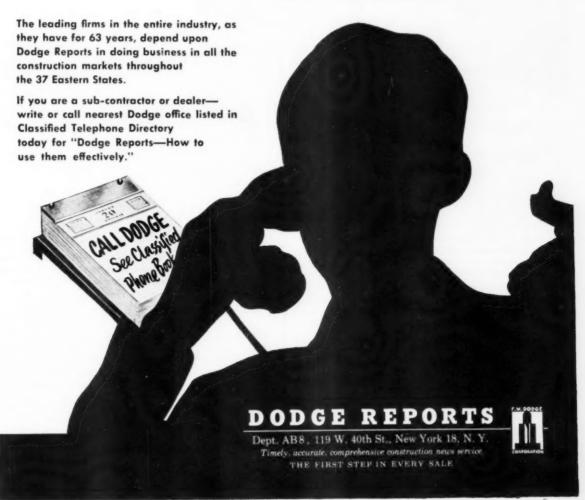
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(Continued from page 214)

pressor motor would become overloaded and fail at the time it was needed most. It is in this field of water-saving devices that the greatest advancements can and must be made by the manufacturers.

#### Design problems—

There are a number of other items that should be mentioned, but, due to lack of space, let's look briefly at a few. For instance, I am strongly opposed to the type of equipment that draws refrigerated air through the heating furnace in summer, because the resultant condensation causes rusting and rapid deterioration of the furnace; and also to the unit that blows heated air across the cooling coil in winter for, at a supply air temperature leaving the furnace of as little as 140 degrees, the pressure of Freon 12 is 205 pounds per square inch. Only greatly oversized storage capacity built into the refrigeration system will reduce this pressure to a safe point. As soon as this situation becomes recognized. it will probably be the subject of legislative control. A single blower can be used for a combination job. but the internal damper arrangement must be such that the above conditions cannot exist.

Some publicity has been given to the desirability of designing a house specifically for air conditioning This is an excellent idea except that from the purely practical standpoint of selling houses, the public is not yet ready for any extreme design changes. You can, however, help yourselves without going to extremes. Take advantage of trees and other foliage; provide wide overhangs, particularly on south and southwest walls. Better insulation is cheaper than larger-sized air conditioning plants, and should be of the type that does not "store up" heat, such as multiple-layer reflective insulation or the blanket-type having aluminum foil on one side. Light-colored roofs reflect up to onehalf the heat that is absorbed by dark roofs, and so also reduce the load. Good attic ventilation is a real help too.

A good air conditioning contractor can be of assistance to you in these and other matters relating to your installation. Give him the chance to help you get better jobs.



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You'll like the "zero" rating by Underwriters' Laboratories, Inc., which allows installation against adjacent cabinets; the price, and the prestige of the Westinghouse name in your kitchens.

Ask your Westinghouse Distributor for complete specifications and installation data on Model HE-244 Range, or write direct.



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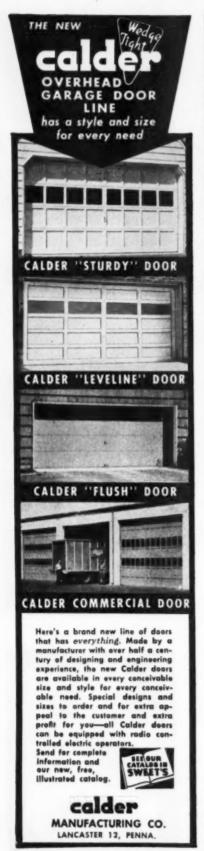
In addition to regular features, this HDA-244 range has a Look-in Oven Door, interior oven light, a Super Corox surface unit, electric clock, automatic oven timer, minute timer and fluorescent light on control panel.



KING SIZE OVEN CAPACITY— Miracle sealed to allow baking in any rack position.



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# installing aluminum windows in "SCR BRICK" walls

FITTING aluminum windows in "SCR brick" walls is essentially the same as fitting wood or steel windows. This article, fifth in American Builder's series on the "SCR brick" wall, points out some generic details common to the types of aluminum windows.

Aluminum residential casement windows are available in three series of standard sizes as approved by the Aluminum Window Manufacturers Association (AWMA). One series is called the AWMA Standard and is non-modular. The aluminum casement windows in this series have the same window dimensions as steel residential casement windows. Therefore, the same installation details can be used as we:e illustrated for steel casements

SCR brick

Steel angle inite!

A caulk resident of consensus window

SCR brick

SCR brick

JAMB

JAMB

JAMB

JAMB

SCR brick

Fig. 1. Head and jamb detail for AWMA modular aluminum residential casement windows in "SCR brick" walls. Sill detail is applicable only to 3 feet 0 inchand 5 feet 0 inch-high windows

in the March, 1953, issue of American Builder. In order to fit them into modular "SCR brick" wall openings, either wood or metal surrounds must be used.

The second series of approved aluminum residential casement windows is designated as AWMA Modular. As the term indicates, these windows are modular and are available in widths of 2 feet 8

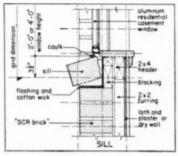


Fig. 2. Sill detail for 2 foot 0 inch and 4 foot 0 inch-high aluminum residential casement windows in "SCR brick" walls

inches, 4 feet 0 inches and 5 feet 4 inches. The AWMA Western Modular, the third series, are available in widths of 2 feet 0 inches, 4 feet 0 inches, 6 feet 0 inches and 8 feet 0 inches. Both modular series are available in window heights of 2 feet 0 inches, 3 feet 0 inches, 4 feet 0 inches and 5 feet 0 inches.

In Fig. 1 are shown the head, jamb and sill details for a typical modular aluminum residential casement window. The sill detail illustrated can be used for windows which are either 3 feet 0 inches or 5 feet 0 inches high. Note that a metal fin attached to the jamb section is recommended in Fig. 1. This fin extends into the jamb slot of the "SCR brick." In Fig. 2 is a sill detail for windows 2 feet 0 inches or 4 feet 0 inches high.

Modular aluminum residential casement windows fit into modular brick openings very easily, as the clean-cut details in Figs. 1 and 2 show. In selecting the size best

suited for installation in brick" walls, the attention of the reader is called to the article on bonding "SCR brick" which appeared in the June, 1953, issue of American Builder. In that article it was emphasized that layout and bonding of "SCR brick" walls is greatly simplified if wall lengths and opening widths are kept to mul-

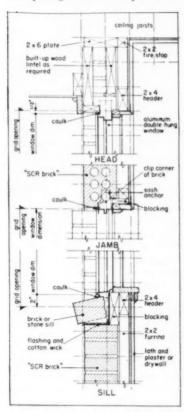
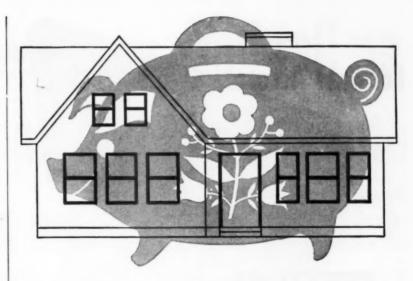


Fig. 3. Head, jamb and sill details for modular aluminum double-hung windows in "SCR brick" walls

tiples of 12 inches. Therefore, the modular aluminum windows that require a minimum of cutting to fit into "SCR brick" walls are those with widths of 2 feet 0 inches, 4 feet 0 inches, 6 feet 0 inches and 8 feet 0 inches.

The Aluminum Window Manufacturers Association does not, at (Continued on page 220)



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### "SCR BRICK"

(Continued from page 219)

present, have any standard sizes for double-hung windows. Most aluminum double-hung window manufacturers, however, have adopted the same sizes as those of the Steel Window Institute's residential double-hung windows Available widths in modular aluminum residential double-hung windows are, therefore. 2 feet 0 inches. 2 feet 4 inches, 2 feet 8 inches, 3 feet 0 inches, 3 feet 4 inches and 3 feet 8 inches. Standard heights are 3 feet 11/2 inches, 3 feet 91/2 inches, 4 feet  $5\frac{1}{2}$  inches, 5 feet  $1\frac{1}{2}$  inches and 5 feet 91/2 inches.

In Fig. 3 is shown a typical installation detail for an aluminum double-hung window in an "SCR brick" wall. These typical aluminum sections are not like any one manufacturer's sections, but represent the average of the individual shapes used by various manufacturers. When overhead balances are used, it will be necessary to provide at least a 2-inch offset at the head as shown in Fig. 3. This can be easily accomplished with a wood lintel. as illustrated, or by a steel "Z" lintel, as shown in the detail for steel double-hung windows which appeared in the March, 1953, issue of American Builder.

At the jamb, it is necessary to clip off the back corner of the "SCR brick" in order to fit the jamb section of the aluminum double-hung window. Bricklayers report, however, that they experience very little difficulty in clipping an "SCR brick" in this manner. The sill presents no particular problems. Sufficient space is available for either a rowlock brick sill, as shown, or a stone or cast-stone sill.

Reprint copies of the first four articles on "Building the 'SCR Brick' Wall," as they have appeared in American Builder, may be obtained without charge from Structural Clay Products Institute, 1520 18th Street, N.W., Washington 6, D.C.

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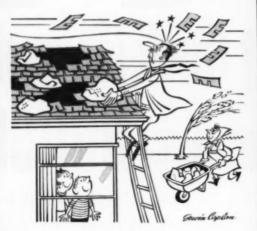
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Ask any insurance man how many roofs are "gone with the wind" each year. He'll tell you that "pin-up" roofs are a headache to policy-writers and plain people in most parts of the country . . . another basic reason why you do well by yourself and your customers when you stand fast for wind resistant CERTIGRADE cedar shingles!

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"No visible deformation of any cedar shingle" was the report of the University of Wichita after subjecting a standard section of cedar shingle roof to the force of a 136-mile windstorm. In a giant wind tunnel, engineers set up a test panel of cedar shingles, constructed in the regular application manner, and tried to "blow the roof off!" The 136-mile wind, maximum force obtainable from the huge propellers, couldn't

budge this time-proven roof material. Remember: The unhappy fellow was heard to say, "I thought it was cheap 'till it blew away!"



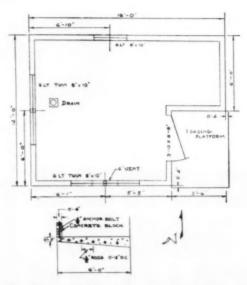
5510 White Building, Seattle 1, Wash. 425 Howe Street, Vancouver, B. C.

### HOW to build a



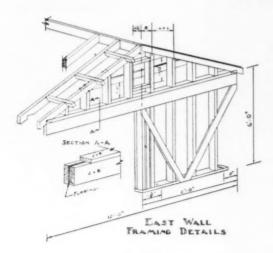
Detail views of model milk house indicating features of the construction used. View (1) shows the vented box cornice at eaves. View (2) shows a portion of the walls with an application of vapor barrier insulation. View (3) shows the covered loading platform portion of the milk house

To assist the thousands of Wisconsin farmers who were required by law to construct a milk-cooling house on their farms by November, 1952, The Stout Institute of Menomonie, Wisconsin, built a model milk house which both embodied new materials plus adequate construction, and exceeded the minimum regulations established by the Wisconsin State Department of Agriculture.

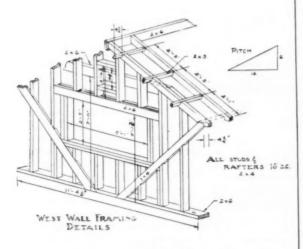


Floor plan of model milk house. Detail indicates the construction of the concrete floor slab

# grade A MILK HOUSE



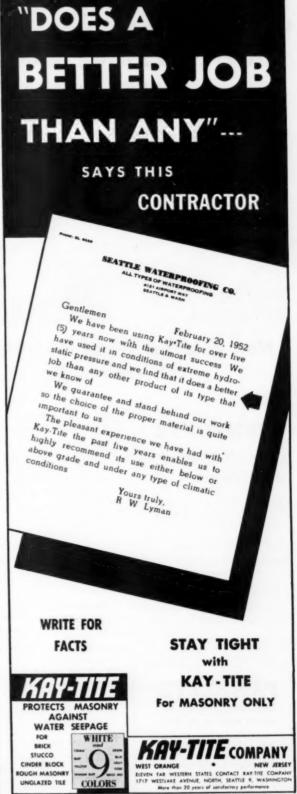
Details showing framing of east wall



Details showing framing of west wall

In the preliminary preparations, the local carpenters' union, two dairy companies and the county cooperated with The Stout Institute, Division of Industrial Education, to set up the model.

The college students in general woodworking and carpentry classes, under the supervision of K. T. Olsen, drew the plans, developed a scale model and built the milk house. Aid was obtained from other departments in connection with wiring, concrete work and painting.



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Installation is easy and quick, using metal moldings and ordinary hand tools. Large sizes, to 4' x 10', for fewer joints and more one-piece surfaces. And you'll have mighty attractive results to show-beautiful surfaces that will last a lifetime.

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### how to compute residential cooling requirements

The National Warm Air Heating and Air Conditioning Association has just published a very useful manual for builders and/or heating contractors who are seeking a practical understanding of the complicated subject of summer cooling for houses.

The Association's "Manual 11: Design and Installation of Summer Air Conditioning for New and Existing Residences" interprets the subject, using the same terminology and reasoning processes to which builders have long been accustomed in connection with the installation of heating systems. This means that the reader does not have to become a refrigeration expert overnight in order to find this manual valuable immediately. Price of the manual is \$1.00 from the Association's headquarters at 145 Public Square, Cleveland 14, Ohio.

Happily, the manual is based on the truth that the computation of cooling requirements follows a pattern comparable to that of figuring heating requirements, and can be boiled into two major elements: (1) the size or capacity of the unit as determined by the over-all cooling or heating needs of the house. and (2) the size of the air-carrying ducts as governed by the cooling or heating needs of individual rooms.

One major difference does exist. however. When figuring the size of a heating system, the heat needs of each room are computed and are then added together. The total number of B.T.U.'s resulting then determines size of the required furnace.

In cooling computation, the situation is different because the sun. which is the source of the major heat load on the house, travels around the house during the course of the day. In the morning hours, the sun load on the east rooms may be at maximum, while the cooling needs of the west rooms will not be so great. In the afternoon, the sun load on the west exposure will be great, while the cooling needs of the east rooms will not be so great.

Actually, this works in favor of

the home owner, because the cooling equipment for which he must pay need not be of as great a capacity as might be supposed when considering the cooling needs of the entire house at any one time.

#### A Two-part Computation

The heat gain calculation for designing the cooling system falls into two parts. First, the entire house is considered as a single room. The heat gains shown for the entire house at a given time of day, qualified by certain coefficients, indicates the size of the cooling equipment needed.

Second, the specific cooling needs are figured for each room individually, in order to determine the size of ducts necessary to carry the maximum amount of cooling air required by each room when it is at its peak of heat gain. Thus, when the east rooms are being flooded with morning sunlight, the duct capacity will be adequate to carry the maximum amount of cooling necessary to keep those rooms at the desired temperature, while the rest of the house is coasting as far as the cooling load goes, Similarly, in the afternoon the west rooms will be kept at the desired temperature because the ducts serving them are of the right size to handle the specific load, while east rooms coast.

#### A House Stores Cooling

Manual 11 recognizes that there exists a certain amount of cooling storage capacity in walls, furniture, and so on. This helps to support the "under-sized" equipment which is the ideal result of careful cooling computation. It has been said that there is enough cooling storage capacity within the construction elements of a house to account for about one-half a ton of ice which can be built up during the night to help the system produce the next day's cooling.

#### Geography is Important

Since cooling and heating needs of houses will vary according to the climate, the heating needs of the house should be plotted as well as the cooling needs. If the house is in the deep South, the cooling requirements will probably be greater than those for heating, and so the ducts installed will be of a size to insure satisfactory cooling.



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PER-FIT Aluminum Windows offer custom quality at mass production prices to the contract builder of fine homes. Tomorrow's window—TODAY!

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   —Yet Easy to Replace Glass
- Storm Sash and Screens Easily Hung, Removed and Stored



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OPC 75-H: Oil-fired Conditionair for basement, alcove or closet installation.



**OPC 75-HR:** Counterflow Oil-fired Conditionair for perimeter heating.



OPC 75-LD: Oilfired for basement installation or where ceilings are low.



GVC 90-H: Gas-fired Conditionair for basement, alcove or closet installation.



GVC 90-HR: Gasfired Conditionair with reverse flow for perimeter heating.



**GVC 90-LD:** Gasfired Conditionair for installation where ceilings are low. At left is the new Delco-Heat OBC-75-H Oil Fired Conditionair; at right, the new GBC-90-H Gas Conditionair. Both are extra compact, specially engineered by General Motors to meet your requirements for space-saving installation in basement, closet, or alcove. Both are built to the double standard of *low-cost* for profitable installation and *quality* for added sales-appeal in your homes and a lifetime of automatic heating comfort.

Delco-built synchronized controls assure level warmth and low gas or oil bills. Full-scale national advertising keeps Delco-Heat before your potential customers . . . adds real buyer acceptance for your homes. For warm air, hot water or steam installations—gas or oil fired—for every heating problem, contact your Delco-Heat Distributor. Or write Delco Appliance Division of General Motors, Dept. ABH, Rochester 1, N.Y. In Canada, Delco-Heat, Toronto 13, Ontario.

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your keys to Sales Success

For a good deal DEAL WITH DELCO

# a televue light for a small house

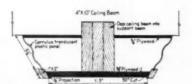


Two views of the Televue light trough built at ceiling level between living room and dining area. Ceiling is air-dried 2x6inch t&g V-jointed fir car decking, also used for roof sheathing

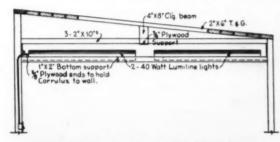
"In today's competitive market, sales appeal is a 'must'," observes R. A. Semke of the Semke Construction Company of Seattle. Project builders of three-bedroom houses at the \$14,000 level, the Semke company develops added sales appeal by (1) installing a Youngstown combination sink-dishwasher and an Arvin built-in clock-radio in every kitchen, and (2) a unique device called "Televue wing lighting."

At the ceiling level, between living and dining area, Semke builds a fluorescent lighting trough which provides ideal illumination for the room while the television set is on.

"Our Televue lighting costs about \$78 in material and labor," Semke reports, "and is worth many times more in sales appeal."



Section showing construction of light



Televue lighting scheme as placed in frame of room



Today's country living demands real city water service

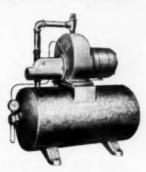


#### Add real sales appeal to your homes with a

# DELCO WATER SYSTEM

Folks past the "City Water Mains" will not be without all the convenience, health, and safety that go with dependable running water under pressure . . . they, too, want nice lawns, automatic dish and clothes washers and protection against fires.

Meet this sales-making demand with Delco Water Systems in the homes you build. Every pump is test rated to deliver every gallon promised or more. General Motors engineering and Delco production skill team up to assure trouble-free performance and low, low prices for profitable installation. Give potential buyers what they want, and save money, too, with Delco Water Systems.



Tank Mounted Convertible Jet Pump converts quickly to deep well operation if water table falls. Pre-packaged for fast, easy installation. For complete information about all pumps, contact your Delco Dealer. Or write: Delco Appliance Division, General Motors Corp., Dept. ABW, Rochester 1, N. Y.



For a good deal

DEAL WITH DELCO





#### this kitchen gets away from the laboratory look

The soft colors of clay tile and mahogany plywood cabinets make this kitchen refreshingly different. It is in a house built by Thomas B. Jordan near Los Angeles.

The floor is finished in Sequoia-red quarry tile in 6x6-inch squares. Glazed wall tile in tones of blue contrasts with the floor, and counter tops are finished in blue unglazed mosaic Velvetex tile. The rich mahogany cabinets are edged with aluminum strips for durability and ease of handling. Built-in range and griddle are topped by a quilted copper inverted hood which conceals lights and a fan.

A pass-through (to right of refrigerator in photograph) is fitted with a large lazy-susan which revolves on a counter to serve a built-in mahogany buffet in the dining area on the other side of the wall. The panel above the refrigerator conceals a handy shelf.

Ceiling and trim in the room are of redwood.



For individuality the "built-in" beauty of the Raynor Carved Raised Panel Door invites comparison!

With the design carved in 1" thick panel blanks (especially constructed by dielectrically gluing together narrow strips, for maximum strength) only the rugged durable construction and smooth performance of the Carved Raised Panel Door can match its beauty. Equipped with "Meter-Balanced" springs and Patented Graduated Seal, a Raynor Carved Raised Panel Wood Sectional Overhead Door can be operated by a woman or small child with ease.

Carved Raised Panels for these doors are available in two sizes—square, approximately 16" x 16" and long, narrow or streamlined, approximately 41" x 16".

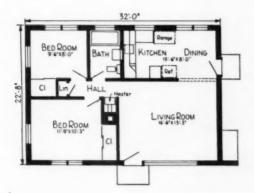
See our catalog in Sweets. Check your telephone directory for the name of the Raynor Representative nearest you.

# what 7,000 housing dollars will do in Seattle



Albert Balch, well-known builder in the Seattle area, is offering a \$7,000 house of frame or concrete block construction on slab floor in a large tract in Renton, Washington. Down payment is \$350, with monthly payments of about \$44. Kitchen equipment is optional. The house was architect-designed in three sizes and 35 different styles. Stressed in the advertising is the fact that the houses are sold already connected to city sewers and city water mains.

By summer of this year Balch had sold 125 of these houses, all of which were occupied, had 85 more under construction. Selling is paced at rate of four to five a







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### association sets pattern

ivability at a minimum cost was the aim of architectural students at Louisiana State University when they designed low cost homes for a contest sponsored by the Southern Pine Association.

Object of the contest was to design a house limited



Floyd H. Carwile, Ir., first prize winner, gets pointers from O. J. Baker, professor of architecture at L.S.U.

to 650 to 750 square feet, with techniques of construction and design to achieve cost reductions without sacrificing eye-appeal and comfort.

First prize winner in the \$100 competition was Floyd H. Carwile, Jr., Lake Charles, La. The contest was judged by Fred Loucks, builder. president of the New Orleans Association of Home Builders. James Wesley Lake.

AIA, and Kenneth T. Teaque, AIA, Baton Rouge, La. H. C. Berckes, executive vice president of Southern

Pine Association, stated that the competition could set a pattern for similar contests at other colleges.

# Two Great MONEY KERS For BUILDERS

 Here are two mixers that are real producers. They speed up work, save many man hours a year and are known everywhere for their quality and rugged construction. See your CMC distributor or write for catalogs.

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● Liberal six foot capacity. No finer machine built for mortar or plaster. Available also in lower priced De Luxe model. Smaller and larger hoe type mixers to fit any job condition.



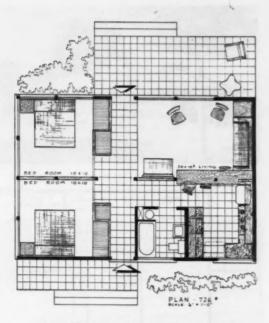
#### WONDER 31/2S TILTER

The original and still by far the finest tilting mixer built. A full half-bag profit builder. Good for mortar,



MACHINERY COMPANIES.

# for student design contest



Floor plan of first prize winner of competition

when you're building houses



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· NORWALK, CONN

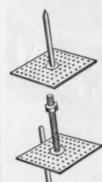
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AND CUT LABOR COSTS ON EVERY JOB

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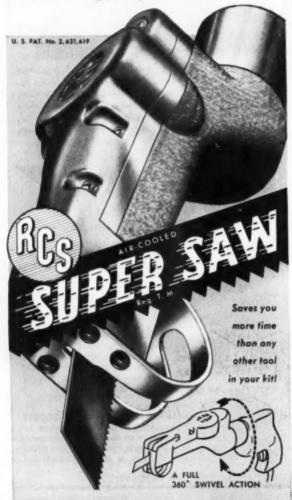
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GENERAL PRODUCTS COMPANY

# cited for design

The 542-unit Crosland Park defense housing project at Aiken, South Carolina, was recently cited by the NAHB Design and Construction Committee as a merit award winner for presenting "a lot of livability in a small area."

Built by Gross-Morton, one of the largest community developers of Long Island, New York, the development comprises three-bedroom dwellings of a modified Colonial design including 11 different elevations and three different floor plans. Of the total, 437 were rented at \$75 per month to employees of the nearby Savannah River atomic energy plant and the other 105 were sold for \$9,990 each.

The architects were William G. Lyles, Bisset, Carlisle & Wolff and Emory Holroyd Jr., associate, of Columbia, South Carolina.





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Simply snap the KORNER KING right angle attachment on your present heavy duty drill (¼" or larger). LOW side gives you 80% more power at half rpm . . . HIGH side doubles your drill's rpm. Drill holes up to 2-9/16 inch in diameter in the most inaccessible spots — between joists and studs, in tight corners, etc. All with 100% safety because an exclusive RCS Torque Release eliminates dangerous torque reaction if drill jams . . . drive shaft continues turning if load or obstruction ever locks driven shaft or bit.

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R.C.S. TOOL SALES CORPORATION

FLOORING

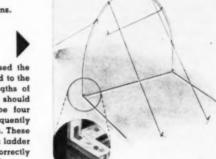
**SINCE 1929** 

# framing a barn with

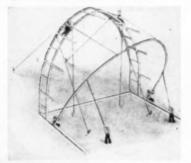


- Place the butt ends of the gable rafters on the sill against angle irons.
- Fasten two guy wires or ropes to each rafter at points about 1/3 the way down from the ridge.
- Just below the guy wires, fasten ropes to each rafter for pulling them up.
- 4. Using two men to lift, the pair of rafters is lifted and tilted up to about shoulder height. Then the men start using pike poles under the rafter arch to help in raising it the rest of the way. The two ropes are used to finish raising the pair of rafters.

- Guy wires are made fast, holding rafters erect.
- 6. Bolt the rafters to the angle irons.



The second pair of rafters is raised the same way as the first, and fastened to the first pair by natiling on short lengths of roof boards. Most of these boards should be two feet long, some should be four feet. The 4-foot boards are subsequently natiled into the third pair of rafters. These boards can be so spaced to form a ladder so a man can climb to the peak. Correctly space rafters 2 feet o.c. as erected.



After the first 2 or 3 arches have been raised, men can climb up near the ridge and, by pulling on the ropes, help litt each subsequent pair of rafters into position.

After the rafters are raised, additional guy wires and diagonal braces should be installed to prevent the possibility of wind damage. Sheathing boards may be used for these temporary braces.



... for EVERY TYPE of HEATING SYSTEM for NEW HOMES... OLD HOMES

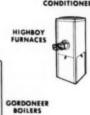
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Principle is the most economical, most efficient way to burn gas . . .

HUNDREDS OF THOUSANDS OF SATISFIED CUSTOMERS



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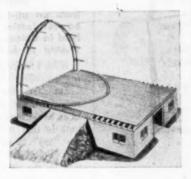


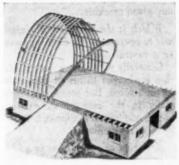




### a mow drive

Start raising rafters from end farthest from drive - door. When you come to the side door opening, raise and secure in place an arch consisting of one multiple rafter jamb and twin back-up rafters. The twin back-up rafters are blocked at ridge, center, and base





Now assemble and raise jamb and twin rafters on the other side of the opening. Nail spacer boards to these arches and install the header. Stub rafters, resting on the header between the jambs, are spaced 2 ft. o.c. the same as other rafters. Raise remaining rafters and frame the ends. It is easier to raise

rafters on a day with little wind. With foundation in, and materials ready, one day should suffice for rafter raising for average barn

Joists for a barn with drive-in mow are placed 1 ft. o.c. under the drive. Care must be exercised to place the joists on both sides of the jamb rafter. Angles are bolted to the sill and flooring laid, leaving 1 to 2 ft. unfloored on each side



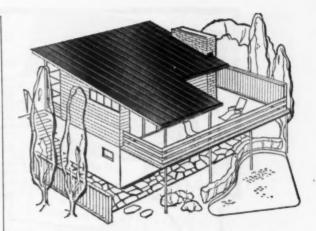
Courtesy Rilco Laminated Products

# Some Facts About Farmers, Farm Houses, and Farm Buildings. . .

As of April, 1952, the population living on farms in the United States numbered 24,037,000 or 15.9 per cent of the total population of the country.

Between 1951 and 1960, 2,000,000 to 3,000,000 farm houses will either be built or repaired, according to HHFA.

During the years 1947 through 1951, an average of \$1.6 billion was expended for farm dwellings and service buildings. This exceeds the dollar volume of all commercial building and is close to the average yearly expenditure for all industrial building.



# "VALLEY TIN" MAKES GOOD ROOFS, TOO!

When you order "Valley Tin" or "Roofing Tin," you mean Follansbee Terne Metal, and that's what you should insist on getting. There is no substitute for the Terne Metal you've been using as weather-sealing for years—and for good reasons. It's the best material for these highly critical areas by far. But, for the same reasons, Terne is also best for the entire roof.

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Write for illustrated literature, specification sheets and name of nearest dealer.



# some questions and answers on air conditioning

from an all-industry conference on residential air conditioning held in Chicago under the sponsorship of Sheet Metal Worker

Which is the proper term for rating a cooling—horsepower or ton?

Standards for terms applying to residential air conditioning are still in an evolutionary phase, Consensus now is that neither "horsepower" nor "ton" is an adequate designation. Best term to use is B.T.U.—that is, the number of B.T.U.'s of cooling delivered per hour is the significant fact to be known about any given machine.

Which is the less costly to install and to operate—units in every room or a central unit?

Generally speaking, a central station is cheaper to install than units in each room. But sometimes, especially in the case of an existing house, the unitary approach might be more economical.

Are there any situations in which it is permissible to attach a cooling unit so that the conditioned air will pass over the heat exchanger?

This is a controversial issue and one for which there is no hard-andfast answer. Generally speaking, however, it is well to avoid this situation, since the cold air could rust out the heat exchanger very quickly under certain conditions.

Should any special precaution be taken in the construction of an air conditioned crawl-space house in regard to moisture problems?

Yes, a crawl-space house should without fail include a moisture barrier between the ground and the sealed space.

How about thermostat location? Is a combination heating-cooling control switch ideal or should heating and cooling thermostats be in different parts of the house?

It cannot be said that a combination heating-cooling control switch is necessarily the ideal arrangement. It must be remembered that the cooling thermostat is a control which prevents over-cooling, and is not a control designed to provide a constant temperature, as is the case with the heating thermostat. It may very well be best to locate the heat-

ing control in north or east rooms. and the cooling control in south or west rooms. Another effective arrangement might be a duct cooling thermostat located near the coil where the return air comes in.

What is the average recommended maximum indoor temperature and relative humidity during periods in which the air conditioner is operating?

In principle, best results are obtained by setting the cooling thermostat at a temperature which will start the cooling process before that time during the day when outside temperature is highest. Around 75 degrees will accomplish this, generally speaking. If the thermostat is set and left at about 75, the house will store up cold to help carry it over the hot period in late afternoon.

What is the present state of development of air-cooled condensers to replace cooling towers where the water is limited?

Two manufacturers at least, at the present time, are offering smallsized units equipped with an aircooled condenser. Carrier offers a 2-ton unit with such a condenser. remotely controlled. Chrysler Airtemp is offering 2- and 3-ton machines with a remote-control air-cooled condenser arrangement which breaks into the refrigeration cycle. The main point to keep in mind when talking about air-cooled condensers is that nothing ever comes for nothing. While the aircooled condenser solves the water problem, in so doing it sets up a power problem. Less water means more electricity and maintainance.

Is it necessary to use three-phase current, or are units available that will operate satisfactorily on singlephase current?

Units operate on both types, of course. Single-phase is usual at the building site and is all right for continuous operation of two- or three-horsepower units. If threephase current is run in, the service will probably involve a stand-by charge by the utility company.

Would it be practical to install a manually operated system, without thermostat or humidistat, which the owner could turn on in the mornting and off at night?

No, with conventional equipment. Yes, if the equipment is specially designed.





LIDE-ALL Sliding Doors J are appearing in an increasing number of blueprints and buildings these days. Little wonder. They're as much at home in custom-built homes as they are in vast housing developments and multi-unit apartment buildings. They're lower in both initial and installation costs than most doors, more dependable and longer lasting. Handsomer, too, they lend beauty to any room. For all these good reasons, more architects and builders are specifying and installing Glide-All Sliding Doors.

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#### awning corner windows afford three-way view



This window installation is in the living room of a country house. It is repeated on the opposite side of the fireplace, where the dining portion of the room is located. This use of awning windows provides ample ventilation and also gives a nearly uninterrupted view of the landscape on three sides of the house from almost any point in the living area.

Interesting window effects like this can be achieved through the use of stock design window units. Pre-glazed, weatherstripped and equipped with sash balances, these units save time, cost in installation.

Courtesy Ponderosa Pine Woodwork



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Fire resistance of Tectum is shown by exposure to flame

It has an insulating "k" of .50, a noise reduction coefficient of from .75 to .85 and structural properties which permit a uniform loading of approximately 300 pounds per square foot for spans recommended for various thicknesses of deck.

The new material is being used for commercial and institution roofs. Simultaneously this roofing serves as an acoustic ceiling, eliminating the need for a false ceiling beneath roof deck.



Tectum being applied as roof deck on new Rockwell Manufacturing Co. plant, Uniontown, Pa.



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- May be built into units of from 2 to 6 windows, using Monarch Mullions.

8. Screens and storm sash to match.





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# how to apply plastic laminate with



Completed plastic laminate installation. Back splash was installed before cabinets were put up

A new adhesive for bonding decorative laminates without the use of any special equipment is available for the installation of plastic laminate kitchen work surfaces.

A special applicator, furnished with the adhesive, leaves just the right amount of cement in a uniform film, with no trowel marks, for a one-coat application. Paste spreaders should not be used because they do not leave the right amount of cement, and do leave trowel marks.

When using this adhesive, these steps should be followed carefully:

1. Both the top surface of the counter and the under surface of the laminate must be completely covered with a film of adhesive. When the adhesive is dry, the entire surface should have a glossy appearance. Dull spots mean that an additional coat must be applied.

2. The cement must be dry; it can be tested for dryness by pressing a small piece of heavy kraft paper lightly against the surface. If no cement sticks to the paper, the cement is dry.

3. Both cemented surfaces must

be at least 70 degrees or above at the time of bonding.

4. After the laminate is in place, the entire surface has to be rolled thoroughly, using heavy pressure on the hand roller. The workman must make sure that every square inch of the two surfaces is brought into contact. No sustained pressure is needed to create a permanent bond.

By following the above steps, a waterproof and heat-resistant bond will result that will not deteriorate with age. The better quality adhesives have an immediate bond strength great enough to veneer edges and make seams without the use of metal moulding or clamps to hold the laminate in place until the cement sets.

The decorative laminates can be applied to wood, plywood, plaster, plasterboard or metal surfaces. Since the laminates are primarily wearing surfaces, the finished surfaces will be no better than those being covered, so one should begin with a surface that is clean, dry and free of defects.

Material Courtesy of Midcontinent Adhesive Co.



Setting laminate aside, adhesive film is spread over top surface of the installation



Using applicator furnished with adhesive levels adhesive film on back of laminate

### **NEW ADHESIVE**



Kraft paper separates dry cemented surfaces until the laminate is put in place



After removing paper separator, entire surface is firmly rolled with a steel roller



Laminate is trimmed back to counter edge with router; plane or file can be used



Using Hudee Frame as guide, sink outline is marked; cut out with portable saw

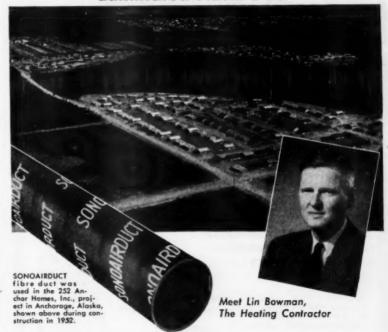
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six basic steps for planning an FLECTRICAL KITCHEN

Extensive studies have been made of the various kitchen functions-food preparation and storage, cleaning and dishwashing, and cooking and serving. Certain principles on the planning of kitchens have been developed so that these functions can be performed with minimum effort and in the shortest possible time. Six basic steps should be taken in planning kitchens for electrical living:

1. Select the desired equipment for which space must be provided.

2. Group the equipment to form logical work centers to perform the three functions mentioned above.

3. Combine the work centers in their correct order for a smooth flow of work.

4. Fit the work centers into the shape and wall "breaks" of room.

5. Determine the floor space requirements by adding the space taken up by the electrical equipment plus that for floor cabinets.

6. Provide adequate storage space both above and below counters.



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### PREVENT that ACCIDENT —

Safety rules for power saws

There is a simple approach to the prevention of nearly every accident that occurs on the building site. The following analysis of common mishaps in using power saws was made by the Division of Safety Standards of U. S. Bureau of Labor Standards.

A carpenter was using a portable electric saw. The blade caught his overalls, which pulled the saw against his leg. Investigation disclosed that the saw was not quarded.

1. All power saws should be adequately guarded. The proper type of guard for a portable saw completely encloses all of the blade not actually in the cut.

A carpenter was using a portable electric saw to cut wedges. A piece of wood kicked back and lacerated his left thumb.

A portable saw should never be used for cutting wedges. Instead, a fixed saw with suitable guides and jigs should be used.

A carpenter was using a portable electric saw. When the guard failed to close quickly, the blade lacerated his leg. Investigation showed that the guard was clogged with sawdust.

3. To be effective, guards of this type must be kept clean and in good working order. Inspection should be made regularly and all faulty equipment should be repaired or corrected immediately, or removed from service.

A carpenter was using a portable electric saw to cut rafters. While standing on wet ground, he suffered an electric shock. Investigation disclosed that the saw had not been grounded

not been grounded.

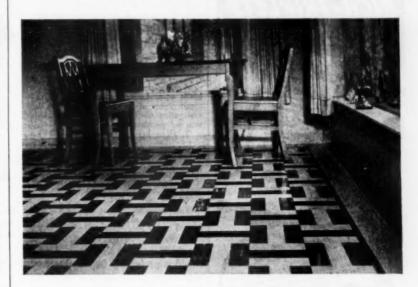
4. All portable electric-powered tools should be adequately grounded. In addition, they should be inspected periodically to insure safe operating conditions.

A carpenter picked up a portable electric saw and tripped over the cord, accidentally closing the switch. He became excited and dropped the saw, which struck his leg. Investigation showed that the saw was not guarded.

5. Portable electric saws should be adequately guarded to prevent accidental contact with the blade. Workmen should be carefully trained in the safe use of all tools. In this case, the carpenter should have placed the saw in a position where it would prevent a tripping hazard when it was not being used.

An employee was cutting a 2x6 rafter with a portable electric circular saw. When he had finished his cut, he shut off the power and dropped his hand with the saw to his side. The still-moving

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#### PREVENT that ACCIDENT

(Continued from page 243)

blade cut a deep gash in his leg. Investigation showed that the guard had been removed from the saw several days before and had not been replaced.

6. Employees should not be permitted to use any equipment without the safeguards which have been provided. Adequate supervision should be maintained to enforce this.

While a carpenter was using a circular saw, his hand struck the moving saw blade when he attempted to brush some small pieces of wood from the table. Investigation disclosed that the saw blade was not guarded.

7. Circular saws should be equipped with a hood-type guard. Workmen using circular saws should be carefully trained in their safe use. A suitable brush should be used to clean the saw table.

While a carpenter was cutting a plank on a circular saw, a piece of sawdust lodged in his eye.

8. Some type of eye protection should be used on this work. A face shield is preferable for operators of circular saws or other woodworking machines where sawdust or chips are likely to be thrown from the operation. However, for men who perform various types of work, goggles are desirable.

A carpenter was adjusting the guide on a circular saw while the saw was run-ning. His hand touched the blade, which amputated a finger.

9. Adjustments or repairs should never be made on equipment while it is in operation.

An apprentice was using an electric table saw. When the belt slipped from the pulley, he attempted to replace it with his foot. The belt caught his foot, twist-

10. All belt drives should be guarded. No one should attempt to adjust or replace a drive belt until the power has been shut off and the equipment has come to a full stop. This rule should be one of the first things taught to an apprentice. The apprentice should not have used his foot to replace the belt. If the belt was too heavy to place by hand, he should have used a bar.

#### Safety rules for hand tools

An analysis of these typical accidents of carpenters on the job show that there is usually a simple approach to the prevention of nearly every such accident. This analysis was made by the Division of Safety Standards of the U.S. Bureau of Labor Standards.

An employee was using a chisel to cut a bolt. As he struck the chisel, a piece

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#### PREVENT that ACCIDENT

of steel chipped from the head of the chisel and punctured his arm. Investigation disclosed that the head of the chisel

was mushroomed.

1. Maintaining tools in good condition at all times is important in accident prevention. Workmen should be trained to remove defective tools from service until they are repaired or corrected.

A carpenter was driving a stake with a sledge. When the stake split, the sledge struck his foot.

2. All workmen should be carefully trained in the safe use of hand tools. In this case, the carpenter should have placed himself in a position so that when the stake split he would not have been struck by the sledge.

A carpenter was installing wall brackets. When one of the brackets slipped, the screw driver he was using punctured

his left hand.

3. All employees should be carefully trained in the safe performance of their duties. In this case, the carpenter should have placed his left hand in a position so that it would not have been struck by the screw driver when it was misdirected.

An apprentice was cutting rock lath with a pocket knife. The blade closed and caught his finger.

4. A spring-blade knife should never be used in this work. Instead. a one-piece knife, properly guarded. should be used.

A helper was drilling holes in an over-head angle iron. Small particles of steel

fell into his eye.

5. Employees engaged in this work should be furnished protective goggles, and should be required to wear them.

A carpenter was using a pair of pliers to remove a nail. When the nail loosened suddenly, the force applied to the pliers threw the nail, which struck the car-

penter's eve

6. Thorough instruction in the safe method of using hand tools should be part of the training given every carpenter. Pliers are not intended for use in removing nails. Instead, a claw hammer or a nail puller should be used.

An employee was cutting a 2x4 with a hand saw. As he started a 45 degree cut, the saw slipped and cut his thumb. Investigation disclosed that the carpenter did not start the cut carefully because

of haste.

7. In this case the workman should have drawn the saw slowly and carefully across the board until the cut was started. Wherever possible, a miter box should be used when sawing at an angle.

A carpenter was using a wrecking bar to pry a board. He did not secure a good "bite" on the board and the bar slipped when pressure was applied, smashing his fingers between the bar and the board.

8. Full pressure should not have been applied to the bar until the proper "bite" had been secured. A proper stance might have prevented injury even though bar slipped.

A carpenter was placing tie wires on a form. As he cut a piece of wire, it flew up and the end struck him in the eye.

9. For this type of work, plastic face shields or goggles are necessary. When cutting wire, the worker should stand to the left of the cut and should hold the wire with his left hand. The free end of the wire will then spring away from him.

A carpenter was nailing rafters. As he struck a nail, it flew back striking him in the eye. The employee lost his vision.

10. Workmen should start nails carefully by striking them squarely but lightly until they have penetrated the lumber to a depth sufficient to be held securely. Goggles or other eve protection should be worn when driving nails.



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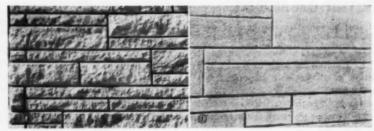
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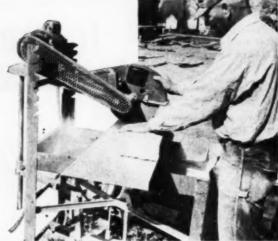
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# Indiana limestone, inside and out



Indiana limestone being cut on a carbordundum table saw

VI ost people tend to think of Indiana limestone in connection with great public buildings constructed to last through the ages. But this attractive buff-to-gray limestone quarried in Lawrence and Monroe counties, Indiana, has an adaptability to residential building that is now being more widely recognized. The Indiana Limestone Co. of Bedford, Indiana, for instance, has for a number of years been producing stone specifically

cut for housing use. So have other companies.

The most popular type for veneer work on houses is the splitstone finish. It is produced by cutting large blocks into multiples of brick sizes, then running the slabs through a splitting machine. The stones produced are about four inches thick, one to six feet long, with heights of two and one-fourth. five, and seven and three-fourths inches. The typical order will in-



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limestone for housing uses: splitstone, sand-sawn, shot-sawn. One ton of either splitstone or sawed finish four inches thick will cover from 40 to 45 square feet of wall surface. One ton of the 3-inch sawed stone will cover about 50 square feet clude percentages of sizes as follows: 15 per cent in 21/4-inch, 40 per cent in 5-inch and 45 per cent in 73/1-inch. Generally, a shipment contains a large percentage of sawed ends, although some rough ends are furnished. Since the horizontal joint (or bed) is sawed, the stone is easy to lay.

Splitstone is laid in a random pattern (or in single sizes) with joining done on the job. A nonstaining mortar is used. The stone can be easily cut on the job and no special handling equipment needed. Window and door sills can be made from the regular run of splitstone, selecting proper sizes; or they can be produced sawed square.

six sides.

There are two other finishes in housing stone-sand-sawn and shotsawn. Both are produced in the same heights as splitstone, in either 3-inch or 4-inch thickness.

The initial cost of Indiana limestone for housing compares favorably to other good masonry materials. To this figure must be added the cost of shipment by truck or rail to the job site. The Indiana Limestone Co. quotes prices per ton at Bedford of \$20 for splitstone and \$19 for sawn housing stone. In-thewall cost varies depending on labor. At Bedford it is said to be \$1 per square foot.



Shot-sawn stone combined with vertical siding, in random pattern



WALL and CEILING PANELS





TRULY THE MOST MODERN SASH BALANCE ever made! ACCLAIMED BY BUILDERS, CONTRACTORS, HOMEOWNERS . . . EVERYWHERE!



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First step is installation of bottom channel. Door frame opening is built to proper size





Overhead channel will carry rollers that permit doors to slide easily in both directions



Uses waste wall space. Has low-level, downward heat delivery. Individual room control. Easy to install, operate, regulate. Quiet, odorless, no sweating, no overheated walls. Safe, dependable. Safety Pilot and Draft Diverter built in.

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#### installing steel sliding doors



Hardware is inserted into doer panel edges according to instructions provided

Care must be taken in inserting completed door panels so as not to pull channels out of plumb and interfere with proper action of sliding doors





Numerals are rightside up for right-hand marking

The Carlson 3210 RH White Chief is designed with numerals reading from right to left (conventional rules read left to right). Hold the 3210 RH rule in your left hand and pencil in your right...numerals are rightside up for right-handed marking. This new rule offers new right-hand convenience plus all the famous Carlson

SEE IT TODAY—AT YOUR HARDWARE DEALER Produced under Patents 2089209, 2510939, 2629180

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For setting door jambs and window framest No other like it. 4 Plumbs, 2 LEVELS. Use either end or edge up. Weighs only 3 lbs. 1-Beam type—non-warp, stronger than aluminum. Direct from factory. Patented.

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These rugged squares of metal with a hard-baked finish possess rigid structural stability. They will not warp, chip, or craze. They resist heat, ordinary household chemicals, and abrasive action of repeated washings.



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Courtesy Mosaic Tile Co.

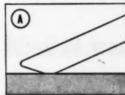
# design for a den, in tile

A Navajo rug design is carried out in small faience quarry tile as the finish floor for this den room in a house in California. Faience is rated as the most durable clay tile. Here it is set in a basket-weave pattern, with dark red used for the contrasting color. One end wall of the room is finished in glazed bronze tile. This gives depth to the room by contrasting with the plaster of the other walls. Ceiling is redwood. Sliding glass doors in one wall open onto a patio.



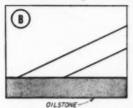
2511 First National Bank Building, St. Paul 1, Minn.

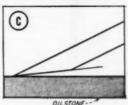
# how to sharpen the bevel angle of a chisel blade



To stone the bevel of a plane iron or a chisel, hold the wrist rigid and move the blade across the stone in a continuous figure eight pattern. Hold the chisel iron in both hands, one to control the bevel angle, the other to supply the uniform downward pressure on the sharpening stone. Movement of the chisel across the stone should be supplied by a swinging motion.

Bevel angles of hand-held chisel-type tools should be from 25 to 30 degrees. The bevel should be a little longer than twice blade thickness. Grind fixed-blade chisels according to the manufacturer's instructions.





(A) To restore proper chisel bevel, use coarse stone, hold tool at correct angle. (B) Beveled surface should rest flat on stone. blade inclined from 25 to 30 degrees. (C) In use, blade angle is slightly greater than 30 degrees, insuring heel clearance

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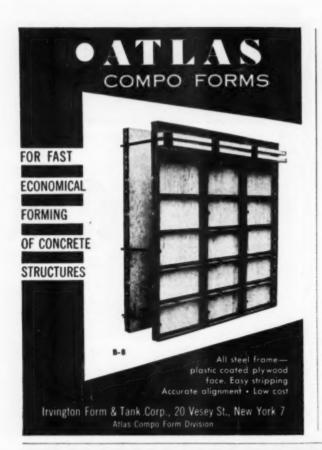
Prices higher in Canada, Order From: Levelail Reg'd., 5465 Decarie Bird., Montreal 29, Une.

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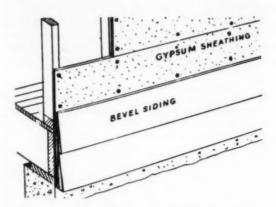
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# how to build exterior walls



WOOD SIDING. Sheathing nails are spaced eight inches o.c. Wood siding is applied directly over gypsum sheathing with nails driven through the sheathing and into the studs.

End joints of the siding fall on studs

# The Name HOPE'S

Fenwood Apartments, Valley Stream, L. I., N. Y

Guarantees

#### 2634 HOPE'S STEEL RESIDENCE CASEMENTS

... were installed in this Apartment Development. Hope's Steel Residence Casements are outstanding favorites with apartment house owners because of their long life and minimum maintenance.

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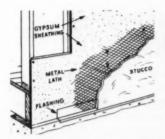
Architect: Samuel Paul

THE FINEST BUILDINGS THROUGHOUT THE WORLD ARE FITTED WITH HOPE'S WINDOWS

# with gypsum sheathing

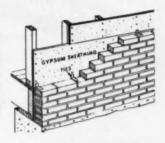
Gypsum sheathing is made for exterior application on wood studs and certain steel studs, spaced not more than 24 inches o.c.

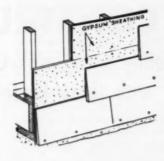
It will receive such exterior finishes as wood siding, masonry, veneer, stucco, shingles, etc., without the use of exterior building paper. Stud spacing for wood and asbestos shingles should not exceed 16 inches o.c. unless horizontal attachment methods or nailing strips are provided.



STUCCO EXTERIOR. Selffurring stucco mesh may
be directly applied over
gypsum sheathing which
has been secured with
nails eight inches o.c. or
wood furring strips may be
used as a nailing base for
flat stucco lath, and again,
sheathing nails are eight
inches o.c.

MASONRY VENEER.
Sheathing nails are spaced four inches o.c. Masonry veneer is applied over gypsum sheathing in the same manner as over any other type of sheathing. The wall ties are secured by nails driven through the gypsum sheathing and into the stude.



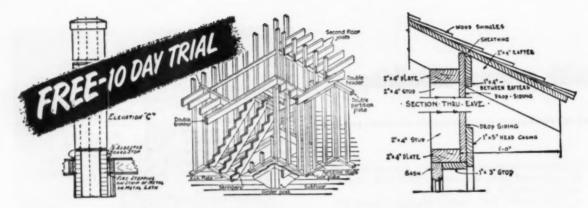


CEMENT ASBESTOS OR WOOD SHINGLES, Cement asbestos is applied directly over gypsum sheathing with approved nails with shanks that expand in the gypsum core, or with light metal channels which engage the butts of shingles, the channels being nailed to framing. Sheathing nails are spaced four inches o.c. Wood shingles are applied over 1x2 horizontal wood nailing strips, spaced according to shingle exposure, and secured through sheathing into studs. Sheathing nails are spaced eight inches o.c.



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TION, CHURUBUSCO, INDIANA



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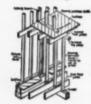
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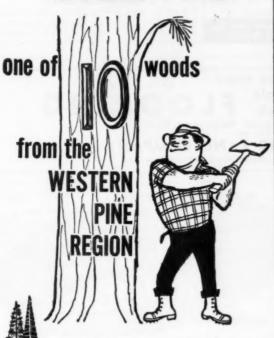
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- . DESIGN. Are controls, gas and electric connections enclosed within one main cabinet
- FILTERING Do you have to build a special holder or is it provided*?
- . DRAFT DIVERTER Is it built in or must you add it?
- FLUE CONNECTION Can you install in more than one location?

  (Farmer is interchangeable) at log or back)
- . CONTROLS Are they low voltage? with matched thermostat, transformer and electric
- . BLOWER: Is it adequate?
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  (FAC uses billess* bearings)
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- . EXCHANGER TUBES Are they venturi action? and made of aluminized steel??
- BURNERS Do you have to change for different gas?

*Standard Equipment on PAC



• Just a casual glance at the new Reznor PAC tells you that here is a horizontal furnace that has what it takes to satisfy your most meticulous customer. Features galore, yet small as a TV set and almost as easy to install.

Reznor PAC makes itself at home in an attic, utility room, basement or crawl space. It's a real area saver for users who need every precious inch of space.

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- . Built by Rezner manufacturers of the world's largest-selling gas unit heater. • Takes as little as 22" x 23" x 40" of space.

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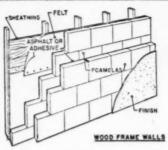
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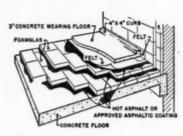
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Exterior is variegated brick with scratched cedar siding applied vertically

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> ing houses built speculatively on single lots is as follows: (1) build a substantial house incorporating modern design ideas; (2) give it the latest in equipment and convenience. and (3) advertise it in full pages so everybody in town will know about it. The Armstrongs had over 2,000 visitors come to this house in response to their ad.

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Know why fall seed-ing is best along with practical tips on said conditioning, grading, drainage, feeding, seeddrainage, feeding, seed-ing, sprinkling, etc. Lifetime subscription to Lawn Care and digest of 100 back issues, FREE



All bedroom closets are Revolvadors, this one shown in open position. Modernfold door leads to hall



Kitchen features natural wood cabinets, tile counter top. Youngstown sink, and linoleum floor



FALL IS AN IDEAL TIME TO GET Scotts LAWN PERFECTION

# PREVENT that ACCIDENT — Good housekeeping is essential to safety on the job

This series of earpentry accidents was analyzed by the Division of Safety Standards of the U. S. Bureau of Labor Standards and shows how important to accident prevention are good housekeeping practices by builders.

A carpenter stepped from a sawhorse platform 18 inches high onto a block of wood and twisted his ankle. Investigation disclosed that the floor was littered with discarded scraps of lumber.

1. Before starting work, the supervisor of the crew should make sure that all working surfaces are cleared of loose materials. Portable steps or platforms with steps are preferable to sawhorse platforms for this type of work.

A helper was carrying a sheet of plywood 4x8 feet by % inches. His vision was blocked by the plywood and he stepped into an opening in the floor and fell. Investigation disclosed that the opening had been made for a hot-air duct.

2. All floor openings in buildings under construction should be adequately guarded with railings and toeboards or should be covered with planks. In handling heavy or large objects, two or more workmen should be assigned to the operation.

As a carpenter was setting forms, his foot slipped and he fell against a form, fracturing his rib. Investigation disclosed that the ground was muddy, very slippery, and had a considerable slope.

3. Before any work is started, safe footing should be provided. This not only reduces the hazards of work but increases production.

A carpenter was building forms for a concrete bridge. While he was walking on a plank which had been placed between an earthen bank and the bridge footing, the plank turned and he fell, striking the concrete footing. Investigation disclosed that the 10-inch plank had been laid as a walkway over uneven ground.

4. Provision should be made for safe access to all jobs. In this case, the plank should have been secured so that it would not turn. In addition, elevated walkways should be constructed of two or more planks, cleated together.

A helper was carrying a door up a stairway, slipped on a 2x4 block, and turned his ankle. When he fell, the door mashed his fingers against the stairway.

5. Each crew should be required to remove its own scrap. Periodic inspections and adequate supervision should be maintained to enforce this rule. Particular attention should be given to keeping stairs free of loose objects.

A carpenter, carrying a plank, stumbled over a piece of lumber. In trying to regain his balance he stepped on a nail projecting from a piece of scrap lumber.

6. Before starting work, the su-

6. Before starting work, the supervisor of the crew should make sure that all working surfaces are cleared of loose materials and other tripping hazards. It should be standard practice on all jobs that nails in scrap lumber must be drawn or bent into the wood before any piece is discarded.

In walking from one end of the building to the other, a carpenter walked across the open floor joists. As he stepped on one, the nails pulled loose and it turned. The carpenter fell, injuring his back. Investigation disclosed that the joists had just been placed into position and that no walkway had been provided.

and that no walkway had been provided.

7. Workmen should not be permitted to walk across joists. A railed walkway should be provided.

A carpenter was removing forms from a concrete foundation wall. The bank on which he was standing caved in and he fell against the wall.

8. Safe footing should be provided for all operations. In this case, the bank should have been properly sloped or shored.

ADDRESS

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September 20-October 11

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During the big Chicagoland Home and Home Furnishings Festival-September 20 thru October 11-more than 1,000,000 homemakers will turn out for the trade's biggest Fall promotion. On Sunday, September 20, the Chicago Tribune, Number One sales producer for your industry, will publish its big Festival supplement.

Here is an ideal event and a proved medium to use to get your Fall season off with the impact you want. For three weeks all Chicagoland will have its attention focused on homes and home merchandise during this community-wide, trade-wide promotion staged by your industry.

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Forms close for the Festival supplement Friday, September 11.

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The following 16 trade organizations representing more than 11,000 members of your industry sponsor the Chicagoland Home and Home Furnishings Festival, in cooperation with the Chicago Tribune:

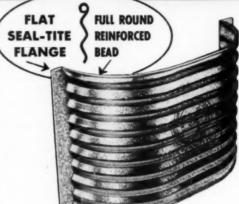
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# how to measure and specify areawalls

Installed correctly, an areawall extends about six inches below the window sill level. This portion is filled with loose gravel, reaching just below the apron of the sill, allowing surface water to filter into the ground outside the unit. Flanges should fit snugly against the wall and be attached with hardened masonry nails.

To determine width: the inside width of the areawall should be at

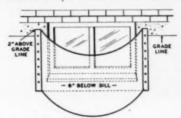


Round type areawall, showing 1½-inch projection beyond foundation opening on each side

east three inches greater than the width of the window opening.

To determine height: over-all

height should include the distance embraced by two inches above finish



View of areawall installation; unit projects two inches above grade line, six inches below window sill

grade line of the building to approximately six inches below the basement window sill.

Material courtesy of St. Paul Corrugating Co.

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Between 1951 and 1960 we must build enough houses to take care of 6,000,000 families as yet unformed or unhoused, according to HHFA.



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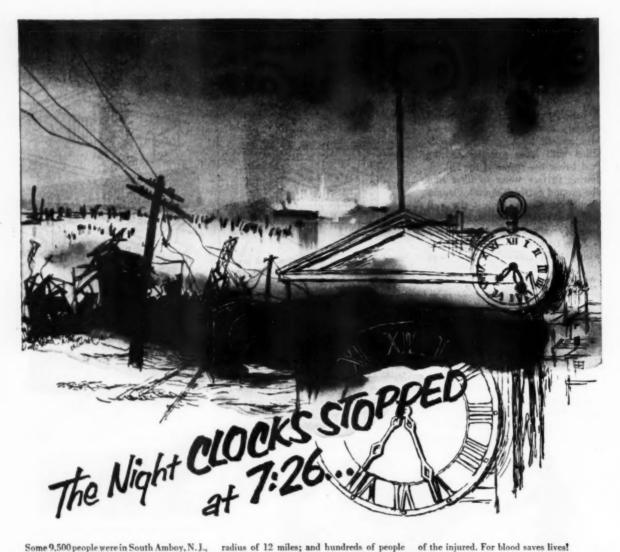
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Some 9.500 people were in South Amboy, N. J., that drizzly evening in 1950. At the waterfront, longshoremen were transferring the last of 12 freight cars of ammunition to light-ers that would carry it to a waiting vessel in Raritan Bay.

But the City Hall clock never got to 7:27and the freighter's deadly cargo never got loaded. Explosions shattered windows over a radius of 12 miles; and hundreds of people looked at their arms and legs and saw that flying daggers of glass had stabbed them.

At dawn, 312 of the injured had been counted. * * *

Such disasters have happened many times before in America. They could happen again. And if they do—and when they do—there must be blood plasma on hand to take care

of the injured. For blood saves lives!

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Has your management en-dorsed the local Blood Donor Program?

Have you informed employees of your company's plan of co-operation? Was this information given through Plant Bul-letin or House Magazine?

Has your company given any recognition to donors?

Have you conducted a Donor Pledge Campaign in your company?

Remember, as long as a single pint of blood may mean the dif-ference between life and death for any American . . . the need for blood is urgent!

# unusual remodeling gives new life to old restaurant



Seven diamond-shaped skylights project above roof line and slope to roof level

Inverted trussed roof construction and unique skylights that give diners a view of the sky are features of a \$100,000 addition to Worwa's restaurant, just completed in Minneapolis, Minnesota, by Harold Kallestad and Associates, builders, The structure was designed by Donald Hustad, Minneapolis architect,



Roof view of skylights shows triangular prisms: 26-inch green glass clerestory (left)

The ceiling in the main dining room has the effect of an inverted gable roof, with the ceiling sloping from 12 feet at the sides to eight feet at the center line.

The new addition covers 56x65 feet, with an 18x31-foot kitchen wing in the rear. Exterior and interior walls are Bedford and Lannon stone, with 4-inch tile between. Floors are tinted terrazzo.

The heating system is forced air. Cooling is by water. The structure contains four zones with individual temperature controls.



Ceiling, finished in vermiculite acoustical plaster, slopes from sides to center line



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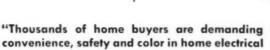
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"Safety—assured by fully nonconductive, nonburning wiring devices, molded of Plaskon. Arcresistant, fire-resistant—these superior devices fully meet Underwriters' specifications.

"Beauty and Color—such as are provided by wallplates and other wiring devices molded of Plaskon. Lustrous nonfading wallplates of Plaskon with molded-in color, match or contrast with any paint or wallpaper. Their smooth surfaces do not chip, do not attract dust. Smudges wipe away with a damp cloth.

"In ever-increasing degree, a complete, topquality wiring job of the kind I have described, influences home sales. Yet such an adequate wiring job costs only a few pennies more per room. Your electrical contractor will be glad to advise you on a complete, quality wiring job the kind that promotes faster sales."

Insure the safety of your home with Electrical Devices . . .

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Homemakers want this attractive this attractive cabinet hardware which is so easy which is so easy to keep clean!



A wide assortment of harmonizing hardware designs especially created for the modern kitchen.

Step-saving efficiency is assured when a generous supply of spacious cabinets are available for dishes and culinary accessories.

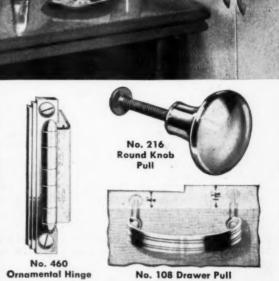
# Beauty in design and finish

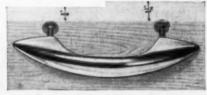
Note the smart, modern styling of this hardware and the wide variety of door and drawer pulls available. The sparkling chro-

available. The sparkling chromium finishes add beauty and years of extra service life.



No. 167 Deener Puil





No. 217 Door and Drawer Pull



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